

**AIRPORT CAPITAL IMPROVEMENT PROGRAM**  
Federal / State / Local

**Oakland-Troy Airport**  
**Troy Michigan**

2012-2022

*Submitted by*

  
Karl Randall, Manager

11-10-11

Date

## OAKLAND-TROY AIRPORT

### ATTACHMENT "A" TO TWENTY YEAR DEVELOPMENT PLAN

#### Justification for Development Plan

##### Program Year 2012

- Existing storm drains are heaving from frost action in high water table. This condition is breaking the pavements causing pot-holes and pavement failure. Plans are complete ready to receive bids.

##### Program Year 2013

- Security fencing is needed to improve and maintain security on airport. Existing fence and power gate is in poor condition. Airport is remarking every two to three years depending on conditions.

##### Program Year 2014

- Existing PFC and bituminous surfaces will have been in service for 18 years.

##### Program Year 2015

- Existing Service Road and Parking 20 plus years.

##### Program Year 2016

- Remediate storm water retention basin. This project has been on the five year program for many years. The need is based on reducing wildlife/bird habitat adjacent and connected to the runway safety area and to reduce maintenance cost of the existing detention basin.

##### Program Year 2017

- Rehabilitate existing terminal building. The existing building has been in service in excess of 20 years and requires new roof, repair to outside walls, new windows and doors, lighting fixtures and plumbing.

##### Program Years 2018

- Rehabilitate Airfield Lighting

Program Years 2019

- Airport Remarketing

Program Years 2020/2021/2022

- To Be Determined

**MICHIGAN STATE BLOCK GRANT PROGRAM**  
**TEN-YEAR AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2012 to FY-2022**

Airport Name: Oakland-Troy Airport											
Associated City: Troy, Michigan											
Sponsor: County of Oakland											
Airport Identifier: VLL											
Development Year	Project Description	Shown on ALP? (Yes or No)	ACIP Code**	NPIAS Priority Rating**	Federal Entitlements	Federal Apportionment	Federal Discretionary	State	Local	Total	Remarks/Item Justification - Provide as much detail as possible.
2012	Rehabilitate Storm Drainage Taxi Streets/ Apron T-Hangar	Yes	REPLIM REPLIMA	68	817,000			21,500	21,500	860,000	
	<b>Total 2012</b>				<b>817,000</b>			<b>21,500</b>	<b>21,500</b>	<b>860,000</b>	
2013	Security Fencing	Yes	STEYIE	43	244,150			6,425	6,425	257,000	
	Airport Remarketing	NA	RE-NA-NA	72	15,200			400	400	16,000	
	<b>Total 2013</b>				<b>259,350</b>			<b>6,825</b>	<b>6,825</b>	<b>273,000</b>	
2014	Rehabilitate Rwy 9-27, Parallel Twy, Crack Repair PFC	Yes	RE-NA-NA	72	557,650			14,675	14,675	587,000	
	<b>Total 2014</b>				<b>557,650</b>			<b>14,675</b>	<b>14,675</b>	<b>587,000</b>	
2015	Rehabilitate Entrance Road, Car Parking, Airport Remarketing	Yes	STOTPA	19	142,500			3,750	3,750	150,000	
	<b>Total 2015</b>				<b>142,500</b>			<b>3,750</b>	<b>3,750</b>	<b>150,000</b>	
2016	Remediate Storm Water Retention Basin	?	STOTPA	45	522,500			13,750	13,750	550,000	
	<b>Total 2016</b>				<b>522,500</b>			<b>13,750</b>	<b>13,750</b>	<b>550,000</b>	

*PFI (2011)  
 Rwy 9/27 = 50  
 Twy A = 50*

SEE ATTACHMENT "A"

\*\* In accordance with FAA Order 5100.39A, Appendix 6 - Fields need to be completed

**MICHIGAN STATE BLOCK GRANT PROGRAM**  
**TEN-YEAR AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2011\* to FY-2021**  
\*ACIP includes current development year; (2010 already programmed - minor changes acceptable)

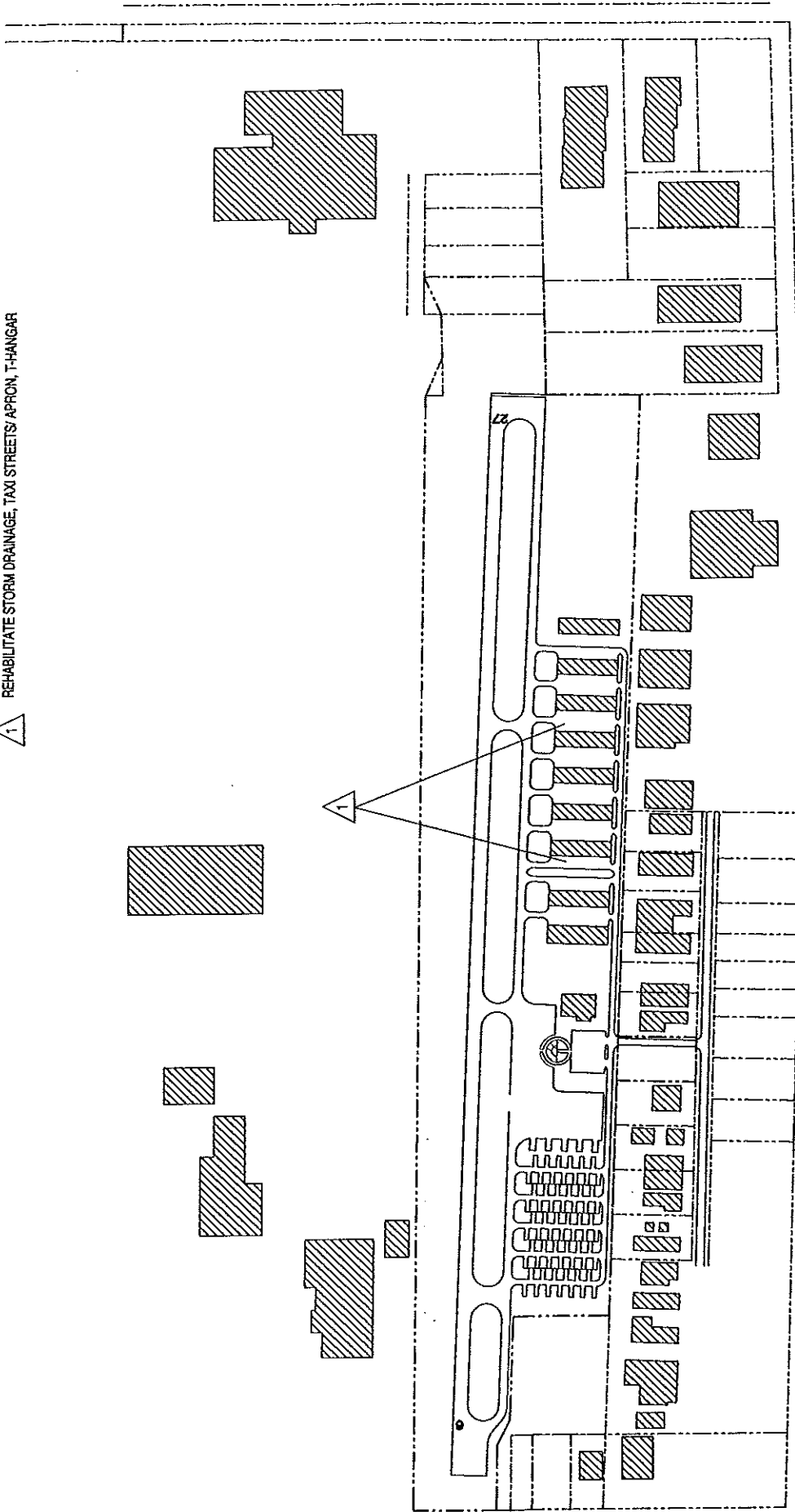
Airport Name: Oakland-Troy Airport Associated City: Troy, Michigan Sponsor: County of Oakland Airport Identifier: VLL												
Date prepared: <b>Rev. 11/7/11</b> Prepared By: <b>Oakland County &amp; PEI</b> Sponsor email address & phone: <b>randallk@oakgov.com</b> FINAL ACIP due to MDOT AERO: no later than 08/01/2011												
Development Year	Project Description	Shown on ALP? (Yes or No)	ACIP Code**	NPIAS Priority Rating **	Federal Entitlements	Federal Apportionment	Federal Discretionary	State	Local	Total	Remarks/Item justification - Provide as much detail as possible.	
2017	Rehabilitate Terminal Building, Doors, Windows, HVAC System	Yes			142,500			3,750	3,750	150,000		
	<b>Total 2019</b>				<b>142,500</b>			<b>3,750</b>	<b>3,750</b>	<b>150,000</b>		
2018	Rehabilitate Airfield Lighting	Yes			285,000			7,500	7,500	300,000		
	<b>Total 2020</b>				<b>285,000</b>			<b>7,500</b>	<b>7,500</b>	<b>300,000</b>		
2019	Airport Remarketing	Yes			15,200			400	400	16,000		
	<b>Total 2021</b>				<b>15,200</b>			<b>400</b>	<b>400</b>	<b>16,000</b>		
2020/21/22	To Be Determined											

\*\* In accordance with FAA Order 5100.39A, Appendix 6 - Fields need to be completed

**PROGRAM LEGEND:**



△ REHABILITATE STORM DRAINAGE, TAXI STREETS/ APRON, T-HANGAR



OAKLAND-TROY AIRPORT		DATE		11-21		SHEET		1 OF 1	
10 YEAR PROGRAM		REP		DATE		SHEET		1 OF 1	
2012		PECKHAM ENGINEERING, INC.		PROGRAM		CONTRACT NO.			
NO.	REVISIONS	BY	DATE	DRAWN	SG	CHKD	REP	DATE	11-21
AUTOCAD FILE NO.		TROY-PRGM		P F 1		JOB NO.			

**ENGINEER'S COST ESTIMATE**

AIRPORT NAME: OAKLAND COUNTY INTERNATIONAL AIRPORT

DATE: August 12, 2010

LOCATION: WATERFORD, MI

PEI JOB NO. 1165

FEDERAL PROJECT NO: D26-0118-1008

STATE CONTRACT NO: FM63-06-C26

DESCRIPTION OF WORK: CD'S TO REHAB, STORM DRAIN/PAVEMENTS TAXI STREETS/APRONS T-HANGAR AREA

ESTIMATE BASED UPON: CONTRACT MOD. TO CADILLAC ASPHALT CONTRACT C106

JUDGEMENT ESTIMATE: \_\_\_\_\_ PRE-PLANS: X DETAIL CONSTRUCTION PLANS: \_\_\_\_\_

LINE NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT:
1	1000400	MOBILIZATION AND GENERAL CONDITIONS	L.SUM	1		\$ 48,000.00
2	1000410	SAFETY & SECURITY	L.SUM	1		\$ 23,522.00
3	1000535	PERMITS	DIR	4,000	\$ 1.000	\$ 4,000.00
4	1510470	FENCE REMOVAL AND DISPOSAL	EA	2	\$ 200.000	\$ 400.00
5	1517050	MISC. CONCRETE DRAINAGE STRUCTURE REMOVAL	EA	2	\$ 1,000.00	\$ 2,000.00
6	1520410	UNCLASSIFIED EXCAVATION	C.YD	500	\$ 8.00	\$ 4,000.00
7	1520465	FINE GRADING	S.YD	10,200	\$ 3.50	\$ 35,700.00
8	1520470	REMOVAL AND DISPOSAL OF BITUMINOUS PAVEMENT	S.YD	10,200	\$ 2.00	\$ 20,400.00
9	1520472	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT	S.YD	120	\$ 10.00	\$ 1,200.00
10	1547021	MISC. SUBBASE COURSE, MDOT CLASS I GRANULAR MATERIAL, COMPACTED MEASURE	C.YD	3,100	\$ 15.00	\$ 46,500.00
11	1540520	SUBBASE COURSE, MDOT 22A AGGREGATE, COMPACTED MEASURE	C.YD	1,550	\$ 25.00	\$ 38,750.00

LINE NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT:
12	1627522	MISC. 6' CHAIN LINK VINYL COATED TOP & BOTTOM RAILS	L.FT	214	\$ 12.00	\$ 2,568.00
13	2080620	EROSION CONTROL, INLET FILTER	EA	24	\$ 100.00	\$ 2,400.00
14	2080621	EROSION CONTROL, INLET FILTER REMOVAL	EA	24	\$ 20.00	\$ 480.00
15	2080625	EROSION CONTROL, SILT FENCE	L.FT	300	\$ 1.50	\$ 450.00
16	2087001	MISC. EROSION CONROL, SILT FENCE REMOVAL	L.FT	300	\$ 0.50	\$ 150.00
15	4000515	SAWING BITUMINOUS PAVEMENT, SPECIFIED DIMENSIONS	L.FT	970	\$ 2.00	\$ 1,940.00
16	4110610	BITUMINOUS AGGREGATE BASE COURSE, 20AAX COMPOSITION	TON	1,935	\$ 65.00	\$ 125,775.00
17	6030515	BITUMINOUS TACK COAT, SPECIFIED EMULSIFIED ASPHALT	GAL	1,000	\$ 2.00	\$ 2,000.00
18	7010560	CONCRETE CULVERT & SEWER PIPE 12", REINFORCED, C76, CLASS IV	L.FT	263	\$ 45.00	\$ 11,835.00
19	7010567	CONCRETE CULVERT & SEWER PIPE 36", REINFORCED, C76, CLASS IV	L.FT	400	\$ 120.00	\$ 48,000.00
20	7010568	CONCRETE CULVERT & SEWER PIPE 42", REINFORCED, C76, CLASS IV	L.FT	1,200	\$ 150.00	\$ 180,000.00
21	7050514	PIPE UNDERDRAIN 12", TYPE AS SPECIFIED	L.FT	1,440	\$ 30.00	\$ 43,200.00
22	7050531	POROUS BACKFILL NO. 2	C.YD	250	\$ 10.00	\$ 2,500.00
23	7510511	CATCH BASIN 5' DIAMETER, TYPE 2, THROUGH 8' DEPTH	EA	11	\$ 2,000.00	\$ 22,000.00
24	7510521	CATCH BASIN 6' DIAMETER, TYPE 2, THROUGH 8' DEPTH	EA	2	\$ 3,000.00	\$ 6,000.00

LINE NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT:
25	7510560	ADJUST DRAINAGE STRUCTURE	EA	3	\$ 500.00	\$ 1,500.00
26	7510561	RECONSTRUCT DRAINAGE STRUCTURE	EA	3	\$ 1,000.00	\$ 3,000.00
27	7510562	REMOVE DRAINAGE STRUCTURE	EA	5	\$ 1,000.00	\$ 5,000.00
28	7510586	DRAINAGE STRUCTURE COVER, TYPE G, IN PLACE	EA	13	\$ 700.00	\$ 9,100.00
29	8007001	MISC. 12" STORM SEWER REMOVAL	L.FT	1,206	\$ 5.00	\$ 6,030.00
30	8007001	MISC. 36" STORM SEWER REMOVAL	L.FT	418	\$ 10.00	\$ 4,180.00
31	8007001	MISC. 48" STORM SEWER REMOVAL	L.FT	210	\$ 15.00	\$ 3,150.00
32	8007001	MISC. 54" STORM SEWER REMOVAL	L.FT	458	\$ 15.00	\$ 6,870.00
33	8007001	MISC. 68X43" STORM SEWER REMOVAL	L.FT	570	\$ 20.00	\$ 11,400.00
34	8007051	MISC. 24' POWER GATE RELOCATION	LS	1	\$ 15,000.00	\$ 15,000.00
35	9010517	TURFING WITH MIXTURE AND RATE, AS SPECIFIED	ACRE	3	\$ 1,000.00	\$ 3,000.00
36	9087012	MISC. WOOD FIBER MULCH, AS SPECIFIED	ACRE	3	\$ 1,000.00	\$ 3,000.00

TOTAL ESTIMATED CONSTRUCTION: \$ 745,000.00  
 TOTAL ESTIMATED ENGINEERING: \$ 112,000.00  
 TOTAL ESTIMATED ADMINISTRATION: \$ 3,000.00  


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 TOTAL ESTIMATED COST: \$ 860,000.00

\* NEW ITEMS REQUIRING NEGOTIATE UNIT PRICE.

**PROGRAM LEGEND:**

-  SECURITY FENCING
-  REMARKING
-  REMARKING



OAKLAND-TROY AIRPORT	
10 YEAR PROGRAM	
2013	
PECKHAM ENGINEERING, INC.	
NO.	REVISIONS
BY	DATE
DRAWN	SG
CHK.	REP.
DATE	11-11
SHT.	1 OF 1
AUTOCAD FILE NO.	TROY-PRGM
P.E.I. JOB NO.	PROGRAM
CONTRACT NO.	

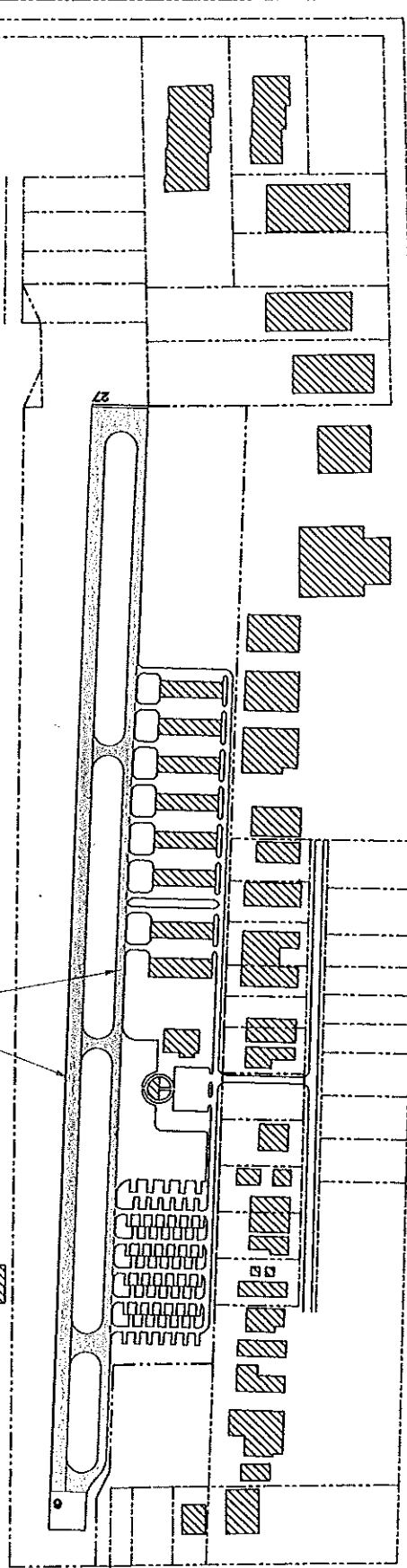
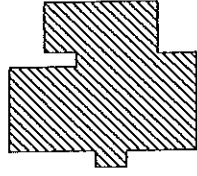
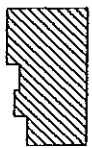
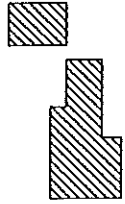
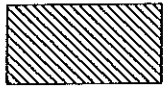




**PROGRAM LEGEND:**



REHABILITATE RUNWAY 9-27 AND  
PARALLEL TAXIWAY CRACK REPAIR PFC.



OAKLAND-TROY AIRPORT			
10 YEAR PROGRAM			
2014			
PECKHAM ENGINEERING, INC.			
NO.	REVISIONS	BY	DATE
		CHK.	DATE
		11-11	SHT. 1 OF 1
AUTOCAD FILE NO.	TROY-PRGM	P.E.I. JOB NO.	PROGRAM   CONTRACT NO.

**ENGINEER'S COST ESTIMATE**

AIRPORT NAME: OAKLAND-TROY AIRPORT

DATE: July 24, 2009

LOCATION: TROY, MI

PEI JOB NO. Program

FEDERAL PROJECT NO: \_\_\_\_\_

STATE CONTRACT NO: \_\_\_\_\_

DESCRIPTION OF WORK: REHABILITATE RUNWAY 9-27 AND PARALLEL TAXIWAY,  
 CRACK REPAIR AND POROUS FRICTION COURSE

ESTIMATE BASED UPON:

JUDGEMENT ESTIMATE: X

PRE-PLANS: \_\_\_\_\_

DETAIL CONSTRUCTION PLANS: \_\_\_\_\_

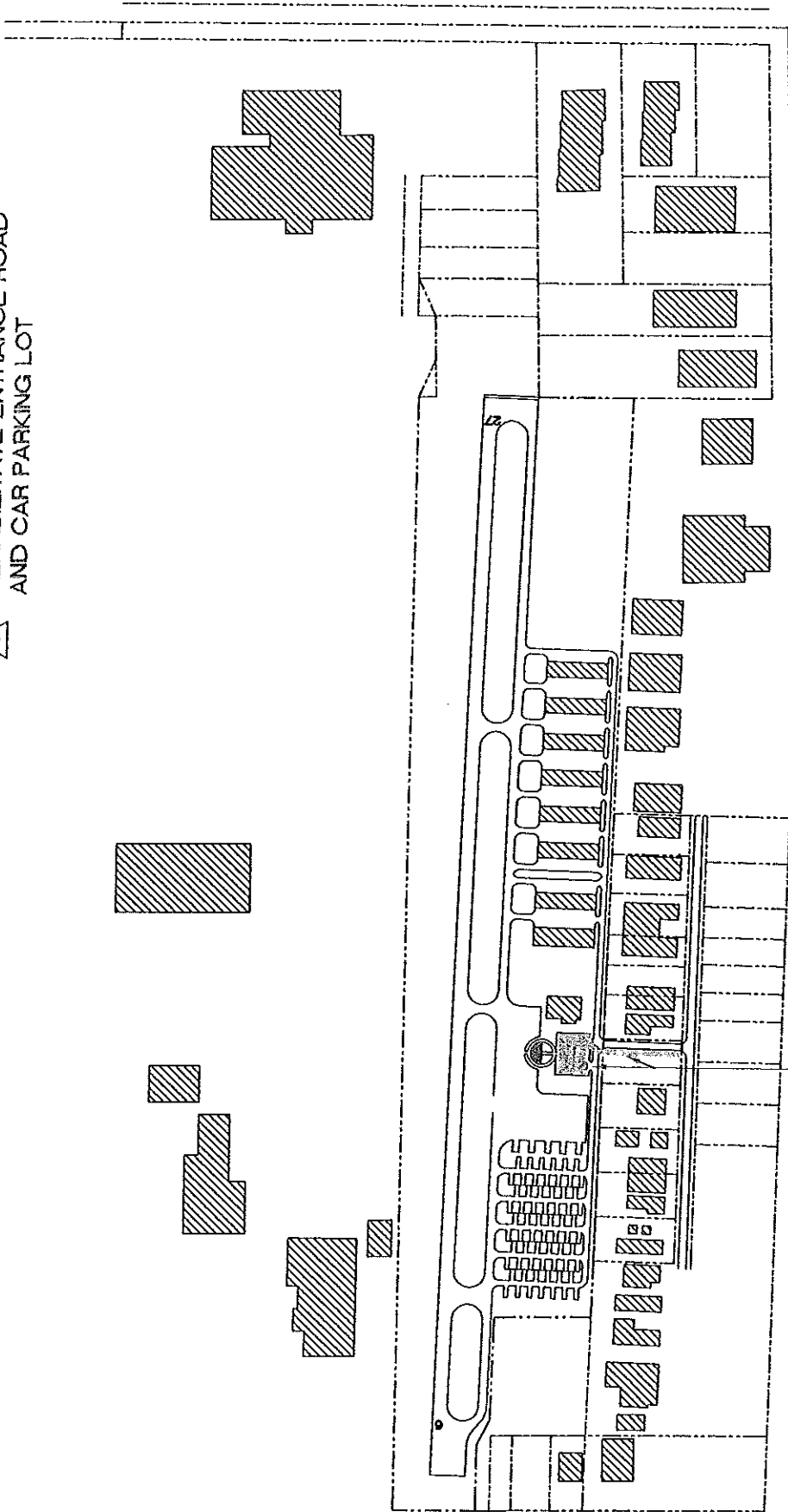
LINE NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT	QUANT.	UNIT PRICE	AMOUNT:
1		MOBILIZATION AND GENERAL CONDITIONS	L.SUM			\$ 30,000.00
2		SAFETY & SECURITY	L.SUM			\$ 5,000.00
3		CRACK REPAIR	L.FT.	2,000	\$ 5.00	\$ 10,000.00
4		BITUMINOUS SURFACE COURSE	TON	3,200	\$ 65.00	\$ 208,000.00
5		COLD MILL POROUS FRICTION COURSE	S.YD.	24,000	\$ 2.00	\$ 48,000.00
6		POROUS FRICTION COURSE	TON	1,800	\$ 100.00	\$ 180,000.00
7		MARKING	L.SUM			\$ 25,000.00

TOTAL ESTIMATED CONSTRUCTION:	\$	506,000.00
TOTAL ESTIMATED ENGINEERING:	\$	76,000.00
TOTAL ESTIMATED ADMINISTRATION:	\$	5,000.00
<b>TOTAL ESTIMATED COST:</b>	<b>\$</b>	<b>587,000.00</b>

**PROGRAM LEGEND:**



REHABILITATE ENTRANCE ROAD  
AND CAR PARKING LOT



OAKLAND-TROY AIRPORT											
10 YEAR PROGRAM											
2015											
PECKHAM ENGINEERING, INC.											
NO.	REVISIONS	BY	DATE	DRWN.	SLE	CHK.	RP	DATE	11-1-11	SHT.	1 OF 1
AUTOCAD FILE NO. TROY-PEGA										PROGRAM CONTRACT NO.	

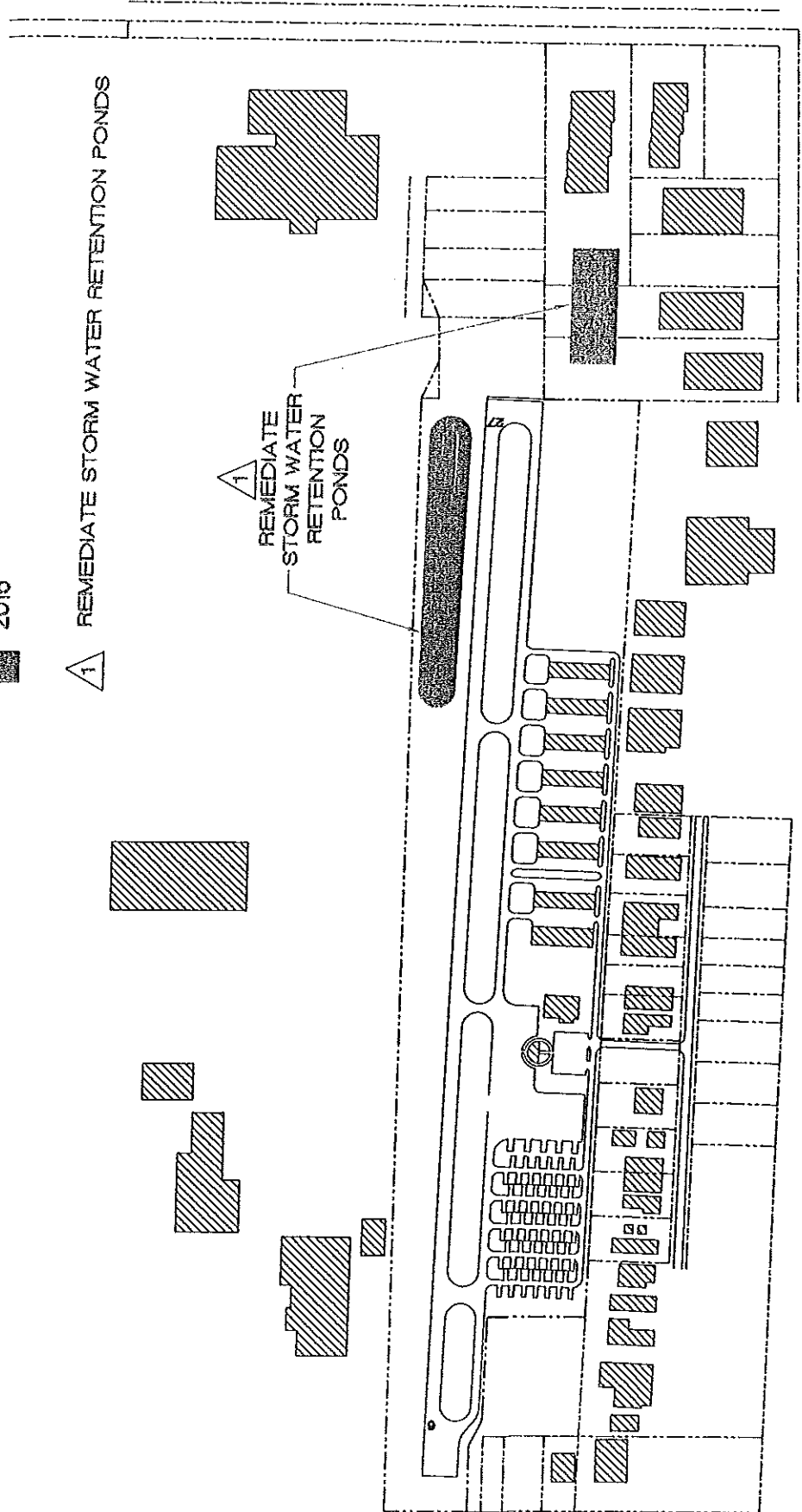
PROGRAM LEGEND:



2016



1 REMEDIATE STORM WATER RETENTION PONDS



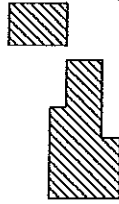
OAKLAND-TROY AIRPORT			
10 YEAR PROGRAM			
2016			
PECGHAM ENGINEERING, INC.			
NO.	REVISIONS	BY	DATE
		DRWN	SLG
		CHK	RGP
		DATE	11-11
		SHT.	1 OF 1
AUTOCAD FILE NO.	TROT-PRGM	P.E.I. JOB NO.	PROGRAM CONTRACT NO.



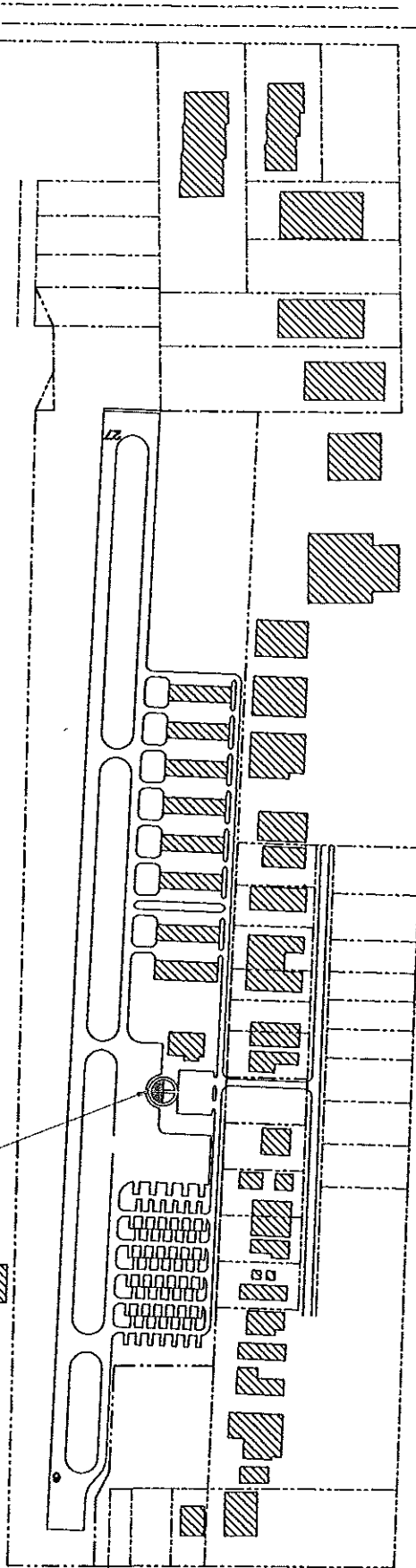
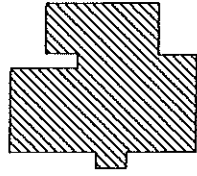
**PROGRAM LEGEND:**



△ REHABILITATE TERMINAL BUILDING  
DOORS, WINDOWS, AND HVAC SYSTEMS.



REHABILITATE  
TERMINAL



OAKLAND-TROY AIRPORT  
10 YEAR PROGRAM  
2017

PECKHAM ENGINEERING, INC.

NO.	REVISIONS	BY	DATE	DRAWN	SLG	CHK	RGP	DATE	11:11	SHT	1	OF	1

AUTOCAD FILE NO. TROY-PRGM P.E.I. JOB NO. PROGRAM CONTRACT NO.

