

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
WETLANDS NATURE WALK

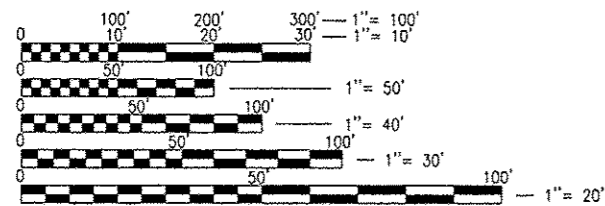
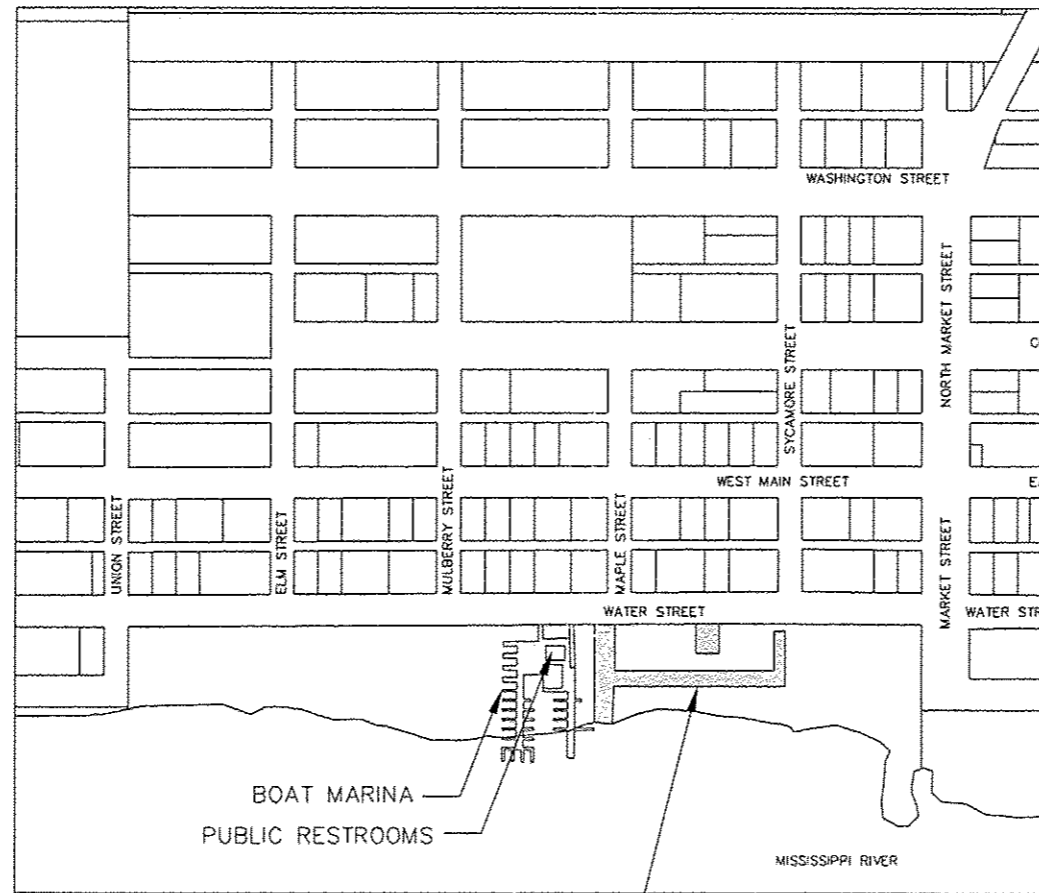
SECTION 06-00015-00-HP
PROJECT NO. SBIL-IL05 (004)
JERSEY COUNTY
CITY OF GRAFTON
JOB NO. C-98-307-07

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00015-00-HP	JERSEY	11	1
FEDERAL AID PROJECT	ILLINOIS	CONTRACT NO. 97565		

SHEET NUMBER	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES & UTILITIES
3	SUMMARY OF QUANTITIES & SCHEDULES
4	EXISTING TYPICAL SECTIONS
5	PROPOSED TYPICAL SECTIONS
6	SITE PLAN
7	SIDEWALK AND BERM PROFILES
8	MISCELLANEOUS DETAILS
9	OUTLET STRUCTURE DETAIL
10	WALK CROSS SECTIONS
11	BERM CROSS SECTIONS

STANDARDS

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
701101-04	OFF-RD OPERATIONS, MULTILANE 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701501-06	URBAN LANE CLOSURE, 2L, 2W UNDIVIDED
701901-03	TRAFFIC CONTROL DEVICES
BLR 17-4	TRAFFIC CONTROL DEVICES - DAY LABOR CONSTRUCTION
BLR 18-5	TRAFFIC CONTROL DEVICES - DAY LABOR MAINTENANCE
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5M) AWAY



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER RGL/AME
PROJECT MANAGER RAK

FUNCTIONAL CLASSIFICATION: WALKING TRAIL

PROJECT LOCATION
LOCATION MAP
SCALE: 1" = 200'
NET AREA = 20,284.11 SQ Ft. = 0.47 ACRE



Ronald A. Keepes
RONALD A. KEEPE, P.E. No. 062-048711
(Printed by Authority of the State of Illinois)
Job No. E118008

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Approved: *Ken Thomas*
5-13-14
City of Grafton, Mayor

Passed: *[Signature]*
6-4-14
District 8 Engineer of Local Roads & Streets

Releasing for Bid Based on Limited Review: *[Signature]*
6-4-14
Deputy Director of Highways, Region 5 Engineer

















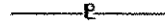




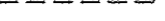



2100 State Street, P.O. Box 1325
Granite City, IL 62040
618-877-1400 F. 618-452-5541

100 North Research Drive
Edwardsville, IL 62025
618-659-0900 F. 618-659-0941




330 N. Fourth Street, Suite 200
St. Louis, MO 63102
314-241-4444 F. 314-909-1931

Professional Design Firm License No. 154.003389

LEGEND

- | | |
|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
|  FIRE HYDRANT |  EXISTING BOLLARD |
|  SIGN |  FUTURE BOLLARD |
|  WM WATER METER |  EXISTING MOORING PILE |
|  WV WATER VALVE |  WATER WELL |
| (TBA) TO BE ADJUSTED |  LIGHT POLE |
| (TBR) TO BE REMOVED |  FUTURE IMPROVEMENTS |
| (TBR&R) TO BE REMOVED & RELOCATED |  GUARDRAIL |
| (TBR&O) TO BE REMOVED BY OTHERS |  WATER LINE |
| (TBR&R&O) TO BE REMOVED & RELOCATED BY OTHERS |  OHE OVERHEAD ELECTRIC LINE |
| DND DO NOT DISTURB |  E UNDERGROUND ELECTRIC LINE |
|  PROPERTY LINE |  DITCH/SWALE |
|  EXIST R/W LINE |  CULVERT |
|  CONSTRUCTION LIMITS |  EXISTING CONDUITS |
|  PROJECT BOUNDARY |  EXISTING EDGE OF RIVER |
| |  EXISTING TOPO FEATURES |

HATCH LEGEND

- | | |
|-------------------------------------------------------------------------------------|----------------------------|
|  | PROPOSED RIPRAP |
|  | PROPOSED CONCRETE PAVEMENT |
|  | EXISTING RIPRAP REMOVAL |

GENERAL NOTES:

- ILLINOIS STATE LAW REQUIRES A 48-HR NOTICE BE GIVEN TO ALL UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-J.U.L.I.E. MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
 - CITY OF GRAFTON
235 GRAFTON HILLS DRIVE
GRAFTON, ILLINOIS 62037
(618) 786-3616
ATTN: JOEL SCHWAAB
 - GRAFTON TELEPHONE COMPANY
119 EAST MAIN STREET
GRAFTON, ILLINOIS 62037
(618) 786-3311
ATTN: MIKE ARNOLD
- MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY *. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.)
- FOR UTILITY LOCATION PURPOSES, THIS PROJECT IS LOCATED IN SECTION 15 OF TOWNSHIP 6 NORTH, RANGE 12 WEST OF THE THIRD PRINCIPAL MERIDIAN.
- THE CONTRACTOR SHALL ADJUST WATER VALVES, AND OTHER ITEMS LOCATED WITHIN THE EXISTING ROADWAY TO MATCH THE PROPOSED ROADWAY SURFACE. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.
- ALL AREAS DISTURBED WITHIN CONSTRUCTION LIMITS FOR ANY REASON SHALL BE SEEDED WITH CLASS 4B SEEDING AND MULCH, IF NOT COVERED WITH PAVEMENT OF ANY KIND, AS DIRECTED BY THE ENGINEER. NUTRIENTS SHALL CONFORM TO ARTICLE 250.04 AND WILL BE PAID FOR SEPARATELY. ALL AREAS THAT ARE DISTURBED OUTSIDE THE CONSTRUCTION LIMITS SHALL BE SEEDED AT THE CONTRACTORS EXPENSE.
- THE CONTRACTOR SHALL BE REQUIRED TO PERFORM SAWCUTTING AT THE EXISTING PAVEMENT, EXISTING WIDENING, OR EXISTING SHOULDER EDGE THROUGHOUT THE PROJECT LIMITS IN ORDER TO PERFORM REMOVAL OPERATIONS. THIS SAWING WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST FOR EARTH EXCAVATION.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

- THE FOLLOWING CONSTANTS WERE USED IN THE CALCULATION OF QUANTITIES FOR THIS PROJECT:

GRANULAR MATERIALS	2.05 TONS/C.Y.
--------------------	----------------
- "ROAD CONSTRUCTION AHEAD" SIGNS (48"x48") SHALL BE PLACED AT THE BEGINNING AND END OF THE PROJECT PLUS THE INTERSECTING SIDE ROADS, AND WILL BE CONSIDERED INCLUDED IN THE TRAFFIC CONTROL AND PROTECTION, (SPECIAL) PAY ITEM. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR AN ON-SITE INSPECTION PRIOR TO SUBMITTING A BID ON THIS PROJECT. UPON RECEIPT OF A BID, IT SHALL BE ASSUMED THAT THE CONTRACTOR IS FULLY FAMILIAR WITH THE CONSTRUCTION SITE.
- ALL EXCAVATED AREAS DUE TO WIDENING AND/OR SHOULDER RECONSTRUCTION OPERATIONS SHALL BE PROTECTED WITH EXTENDED LEG BARRICADES WITH APPROPRIATE LIGHTS. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE TRAFFIC CONTROL AND PROTECTION, (SPECIAL) PAY ITEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE FIRE DEPARTMENT AND POLICE DEPARTMENT OF THE RESPECTIVE MUNICIPALITY ANY TIME NORMAL TRAFFIC FLOW ON ANY STREET OR ROAD IS TO BE INTERRUPTED, HOWEVER BRIEFLY.

CITY OF GRAFTON POLICE DEPARTMENT (NON EMERGENCY)	618-786-3354 (NON EMERGENCY)
CITY OF GRAFTON FIRE DEPARTMENT (NON EMERGENCY)	618-786-3300 (NON EMERGENCY)
JERSEY COUNTY SHERRIFF DEPARTMENT (NON EMERGENCY)	618-498-6881 (NON EMERGENCY)

ABBREVIATIONS

- | | |
|--------|------------------------------------|
| AD | ALGEBRAIC DIFFERENCE |
| BP | BEGIN POINT |
| BVCE | BEGINNING VERTICAL CURVE ELEVATION |
| BVCS | BEGINNING VERTICAL CURVE STATION |
| CCA | CHROMATED COPPER ARSENATE |
| C.L. | CENTERLINE |
| CMP | CORRUGATED METAL PIPE |
| DIA | DIAMETER |
| ELEV | ELEVATION |
| EP | END POINT |
| EVCE | ENDING VERTICAL CURVE ELEVATION |
| EVCS | ENDING VERTICAL CURVE STATION |
| H | HORIZONTAL |
| K | VERTICAL CURVE LENGTH/AD |
| LB | POUND |
| N/F | NOW OR FORMERLY |
| N.T.S. | NOT TO SCALE |
| PC | POINT OF CURVE |
| PI | POINT OF TANGENT INTERSECTION |
| PT | POINT OF TANGENT |
| PVC | POINT OF VERTICAL CURVE |
| PVI | POINT OF VERTICAL INTERSECTION |
| PVIE | POINT OF VERTICAL CURVE ELEVATION |
| R/W | RIGHT OF WAY |
| STA | STATION |
| TYP | TYPICAL |
| V | VERTICAL |
| VC | VERTICAL CURVE |
| W/ | WITH |

COMMITMENTS

NONE

SECTION NO. 06-00015-00-HP
REVISIONS

MARQUETTE AND JOLIET WETLANDS
NATURE WALK

JUNEAU
ENGINEERING & LAND SURVEYING
Professional Design Firm License No. 154000389
JAI Job No.: E108003 | Scale: 1" = 30'
Dr. RGLJANE | Ck. RAKC | Date: 5-29-14

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
20200100	EARTH EXCAVATION	CU YD	103
20400800	FURNISHED EXCAVATION	CU YD	405
25000314	SEEDING, CLASS 4B	ACRE	0.35
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	33
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	33
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	33
25100105	MULCH, METHOD 1	ACRE	0.35
28100109	STONE RIPRAP, CLASS A5	SQ YD	261
28100209	STONE RIPRAP, CLASS A5	TON	53
28200200	FILTER FABRIC	SQ YD	261
31100300	SUBBASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	225
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	640
67100100	MOBILIZATION	L SUM	1
X0323265	REMOVE EXISTING RIPRAP	SQ YD	26
* X0326406	INFORMATION KIOSK COMPLETE	EACH	1
X5030015	OUTLET STRUCTURE	L SUM	1
X4240420	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH, SPECIAL	SQ FT	1,392
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1

* SPECIALTY ITEMS

EARTHWORK SCHEDULE

LOCATION				EARTH EXCAVATION	EARTH * EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
STATION	OFFSET	STATION	OFFSET	(CU YD)	(CU YD)	(CU YD)	(CU YD)
WEST WALK							
ALONG WALKWAY							
0+00.00	5.0' RT - 4.0' LT	1+85.52	16.7' RT - 13.8' LT	12	9	19	(10.00)
ALONG RIPRAP							
0+04.75	10.3' LT	0+21.42	9.0' LT	4	3	0	3.00
NORTH WALK							
0+00.00	4.0' RT - 4.0' LT	0+70.00	21.8' RT - 17.8' LT	0	0	63	(63.00)
BERM							
5+18.00	4.6' RT - 4.3' LT	9+82.27	4.0' RT - 4.6' LT	87	65	400	(334.75)
TOTAL				103	77	482	(405)

NOTES: * BASED ON 25% SHRINKAGE

SEEDING SCHEDULE

LOCATION			NITROGEN FERT NUTR *	PHOSPHORUS FERT NUTR *	POTASSIUM FERT NUTR *	SEEDING CL 4B	MULCH METHOD 1 **
STATION	STATION	OFFSET	(POUND)	(POUND)	(POUND)	(ACRE)	(ACRE)
WEST WALK							
0+00.45	1+85.18	RIGHT	3	3	3	0.03	0.03
0+00.00	1+99.11	LEFT	3	3	3	0.03	0.03
NORTH WALK							
0+00.13	0+73.12	RIGHT	2	2	2	0.02	0.02
0+00.09	0+71.89	LEFT	2	2	2	0.02	0.02
BERM							
5+07.60	9+84.27	RIGHT	11	11	11	0.12	0.12
5+07.69	9+84.27	LEFT	12	12	12	0.13	0.13
TOTAL			33	33	33	0.35	0.35

NOTES: * 90 LBS/ACRE
** APPLY AT A RATE OF 2 TONS/ACRE

RIPRAP SCHEDULE

LOCATION	STONE RIPRAP CLASS A5 (SQ YD)	STONE RIPRAP CLASS A5 (TON)	FILTER FABRIC (SQ YD)
WEST WALK			
STA 4+75.00 TO STA 0+21.42 LT	8		8
STA 1+47.94 TO STA 1+96.67 LEFT		53	
BERM			
STA 5+18.00 TO STA 8+53.00 RIGHT	237		237
STA 6+94.41 TO STA 7+12.71 LEFT	16		16
TOTAL	261	53	261

NOTES:
1. THE SQUARE YARD QUANTITY FOR STONE RIPRAP SHALL BE USED ONLY IN AREAS WHERE THERE IS NO EXISTING RIPRAP OR THE EXISTING RIPRAP IS TO BE REMOVED AS SHOWN IN THE PLANS. THE TONNAGE QUANTITY IS TO BE PLACED OVER AREAS OF EXISTING RIPRAP.

PAVEMENT SCHEDULE

LOCATION	SUB GRAN MAT A 4 (SQ YD)	PC CONC SIDEWALK 4 (SQ FT)	PC CONC SIDEWALK 4 SP (SQ FT)
WEST WALK			
STA 0+00.00 TO STA 1+57.08	110	0	992
STA 1+57.08 TO STA 1+77.08	44	0	400
NORTH WALK			
STA 0+00.00 TO STA 0+40.04	27	240	0
STA 0+40.04 TO STA 0+60.04	44	400	0
TOTAL	225	640	1,392

CONTRACT NO. 97565 SECTION NO. 06-00015-00-HP

REVISIONS

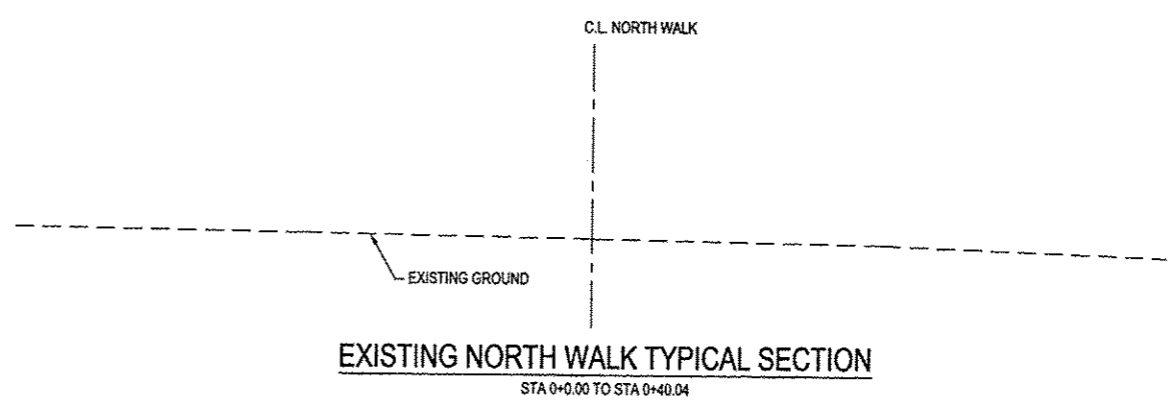
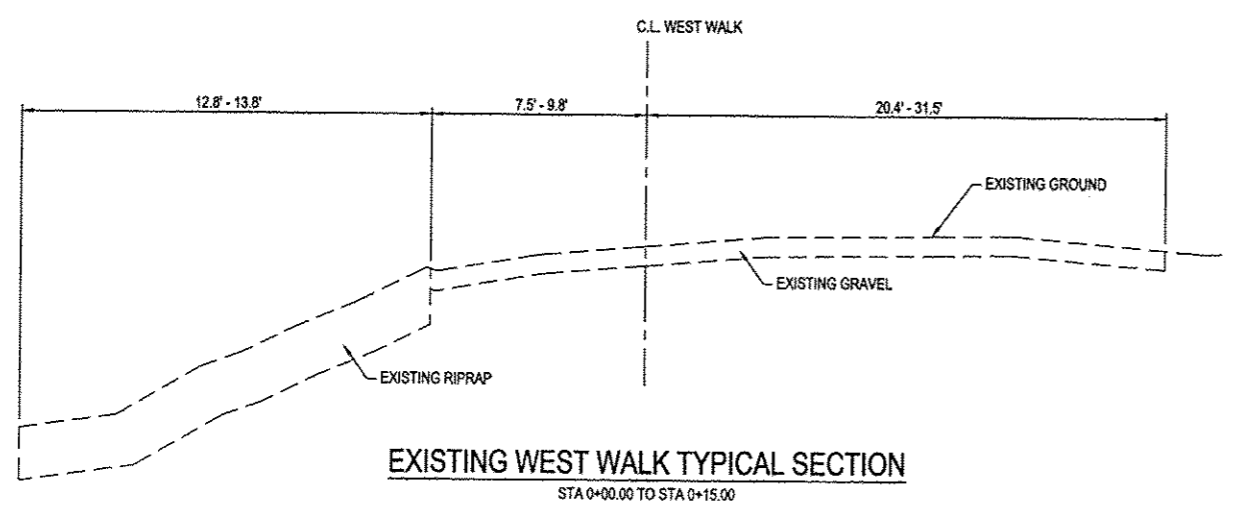
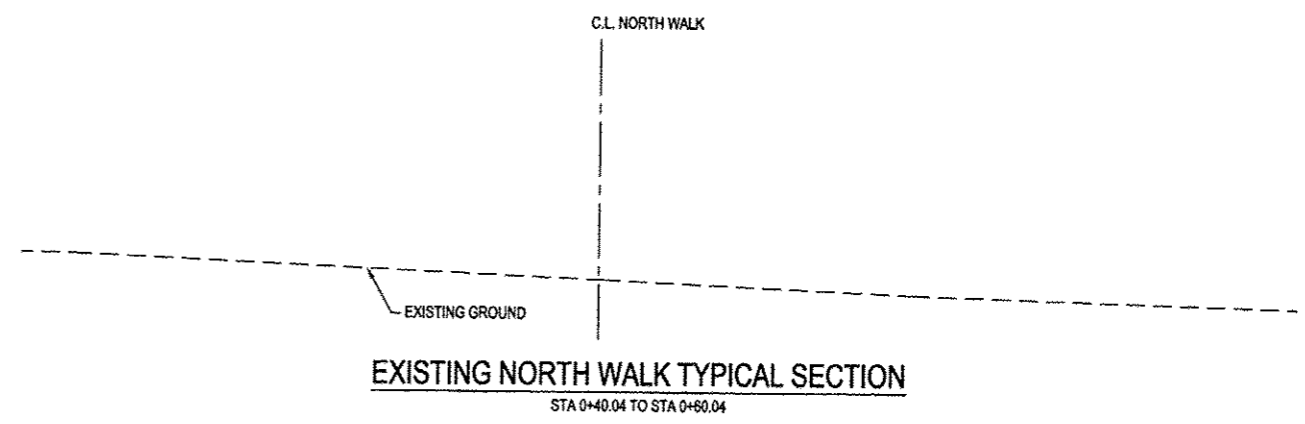
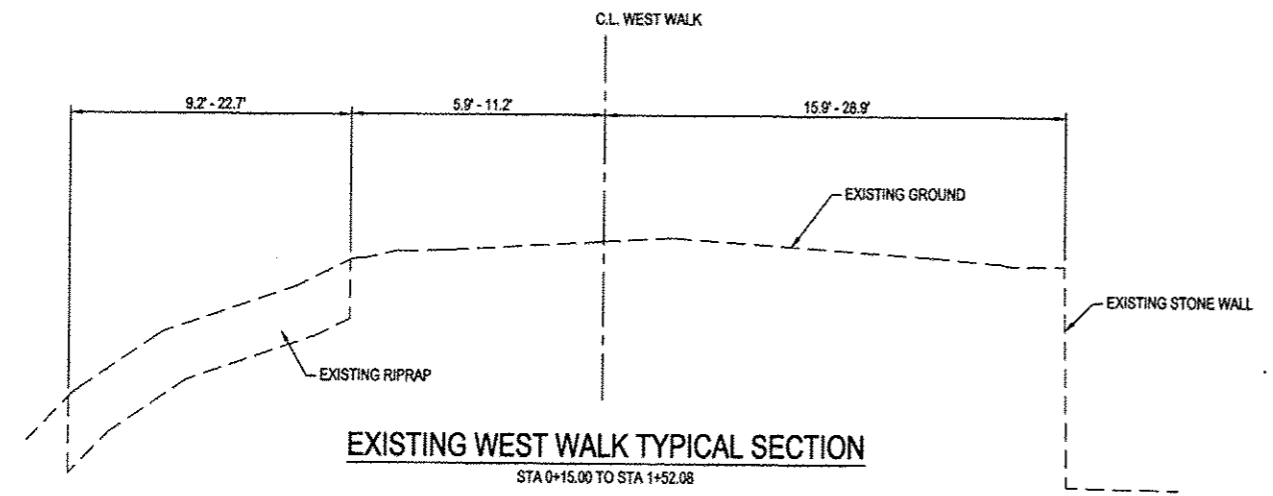
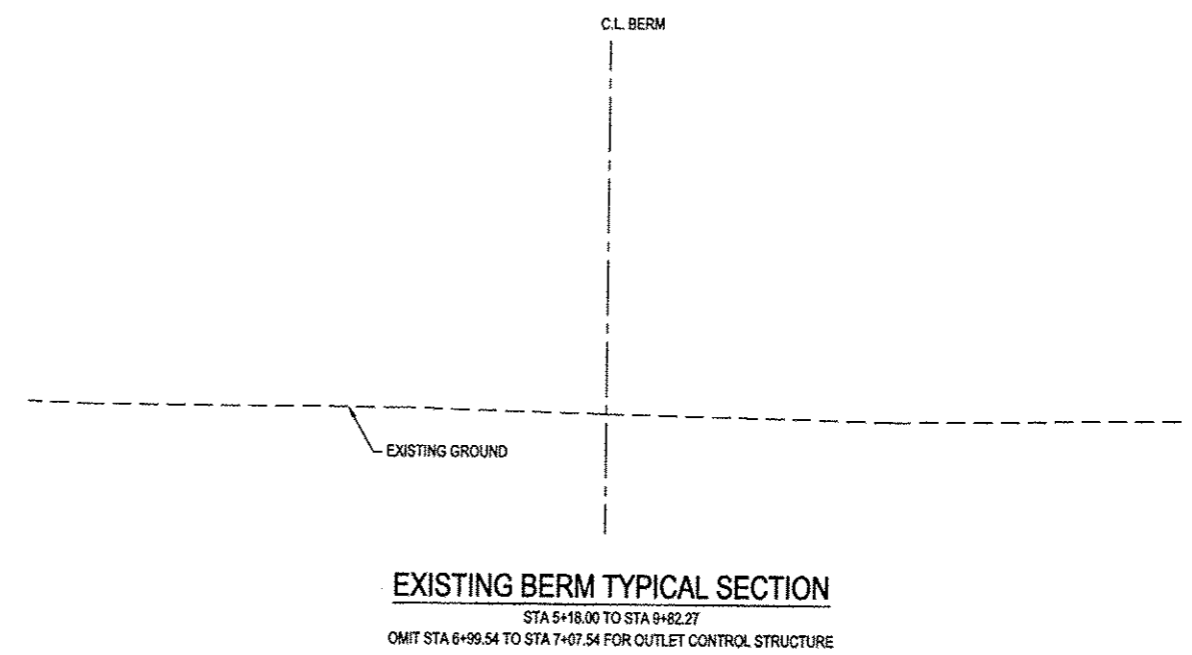
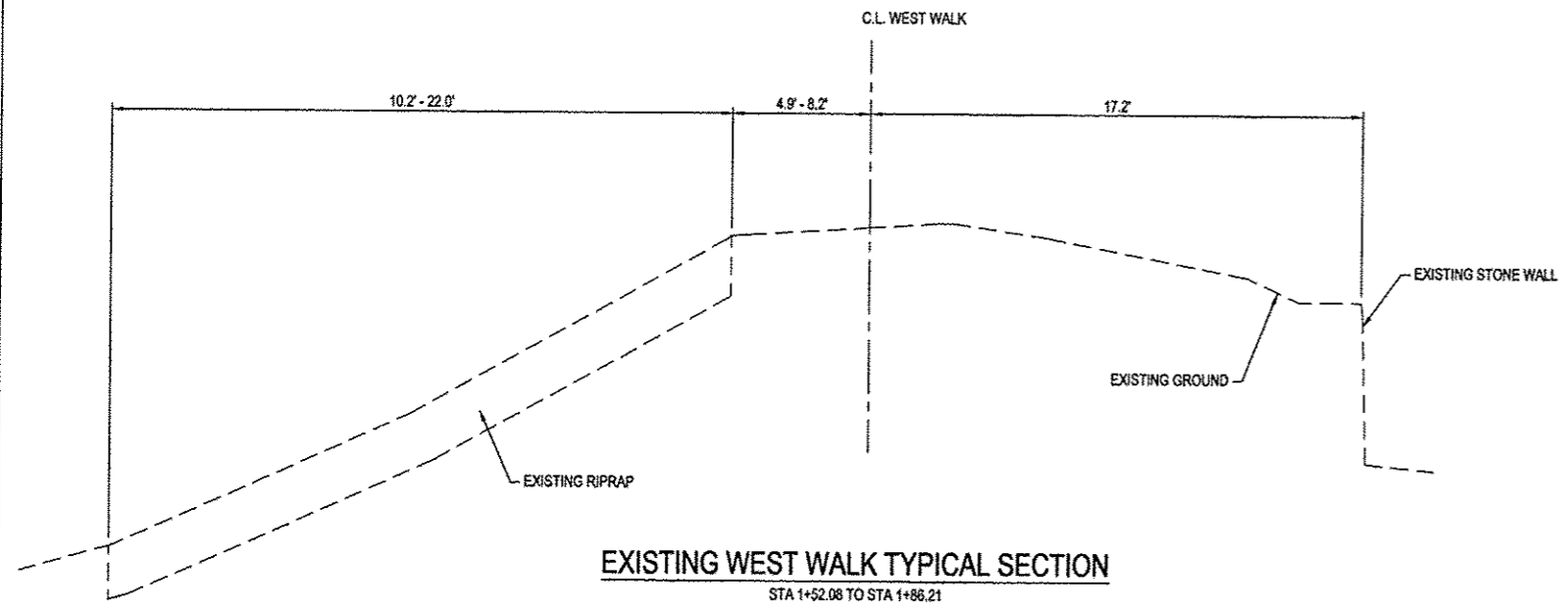
MARQUETTE AND JOLIET WETLANDS


NATURE WALK

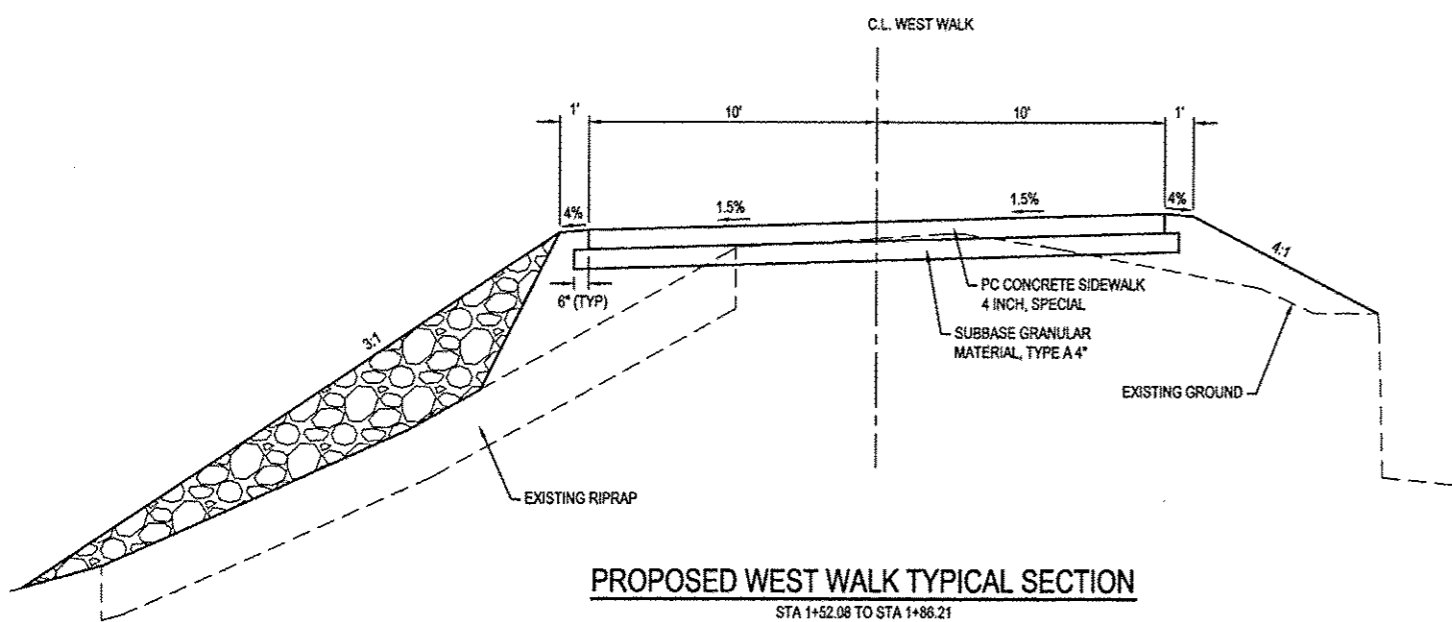
SUMMARY OF QUANTITIES & SCHEDULES

JUNEAU
ENGINEERING & LAND SURVEYING
Professional Design Firm License No. 194.000038

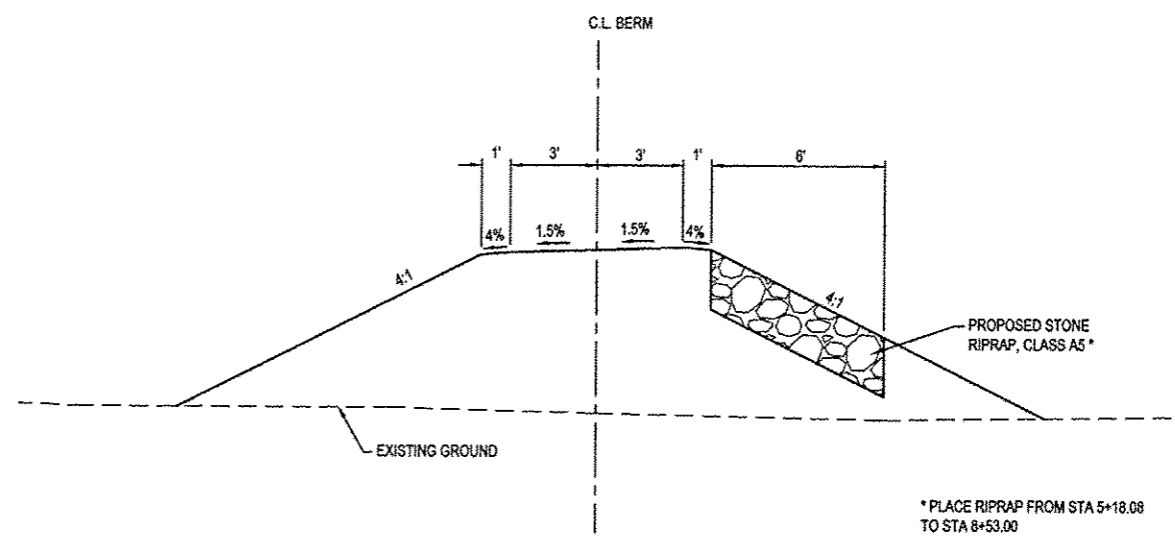
JAI Job No.: E108003 Scale: 1" = 30'
Dr. REGANIE Cx RAK Date: 5-29-14



 <p>JUNEAU ENGINEERING & LAND SURVEYING Professional Design Firm License No. 194203389</p>	<p>CONTRACT NO. 97565</p>	<p>SECTION NO. 06-00015-00-HP</p>	<p>REVISIONS</p>
<p>MARQUETTE AND JOLIET WETLANDS</p> <p>NATURE WALK</p>			
<p>EXISTING TYPICAL SECTIONS</p>			
<p>JAJ Job No.: E108003</p> <p>Dr. REGANIE CK</p>	<p>Scale: 1" = 30'</p>	<p>Date: 5-29-14</p>	
<p>4</p>			

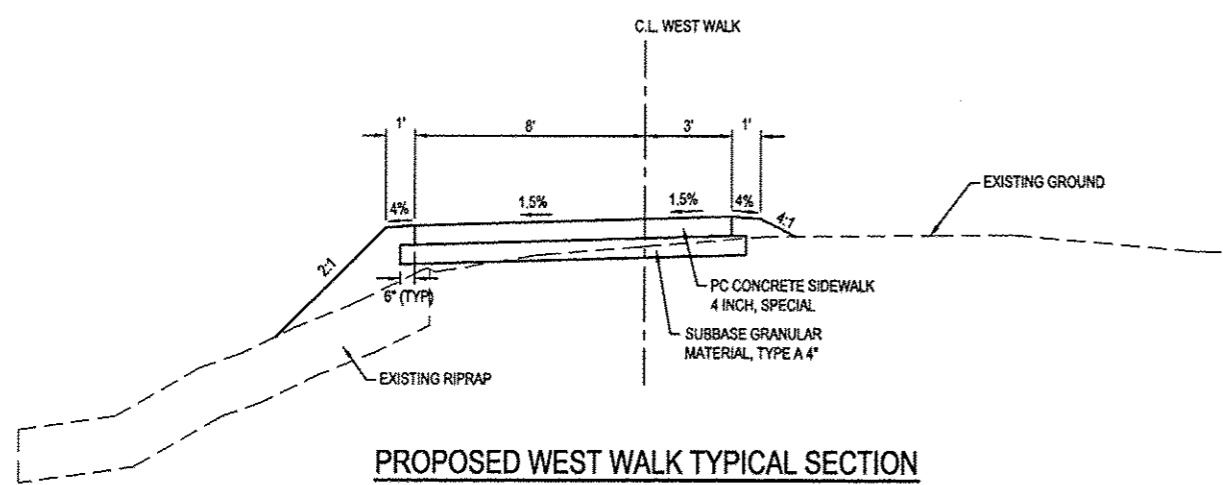


PROPOSED WEST WALK TYPICAL SECTION
STA 1+52.08 TO STA 1+88.21

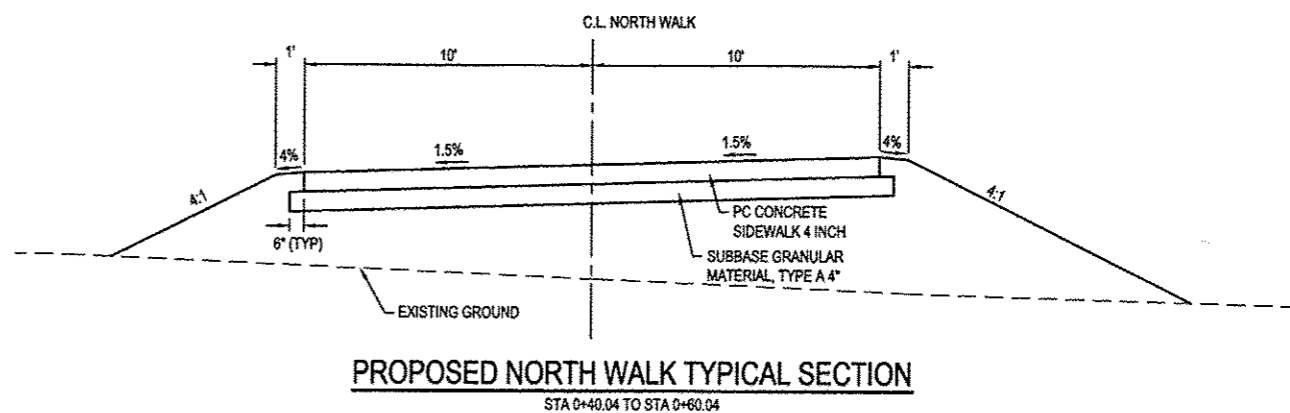


PROPOSED BERM TYPICAL SECTION
STA 5+18.00 TO STA 9+82.27
OMIT STA 6+99.54 TO STA 7+07.54 FOR OUTLET CONTROL STRUCTURE

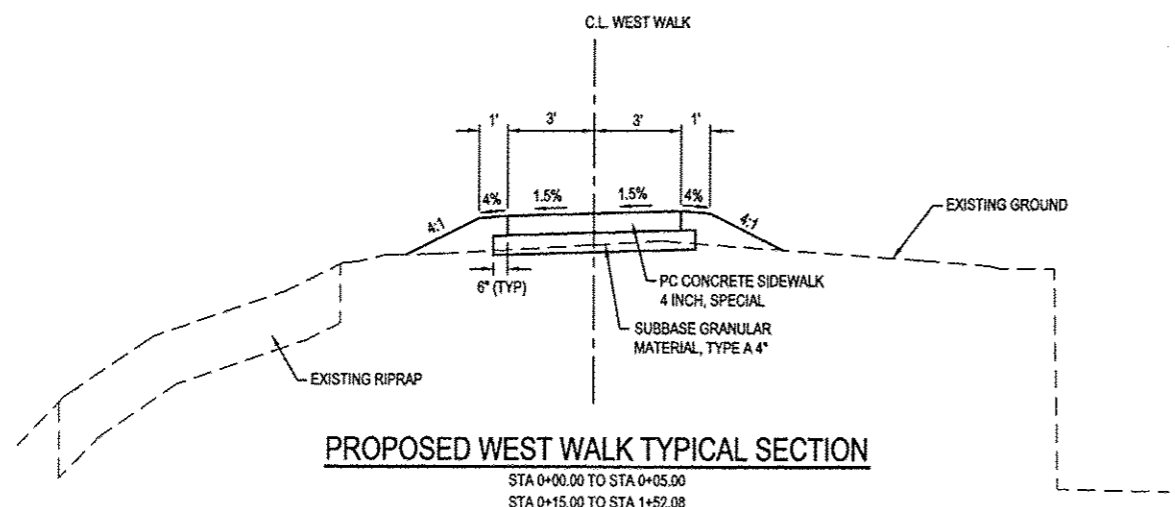
* PLACE RIPRAP FROM STA 5+18.08 TO STA 8+53.00



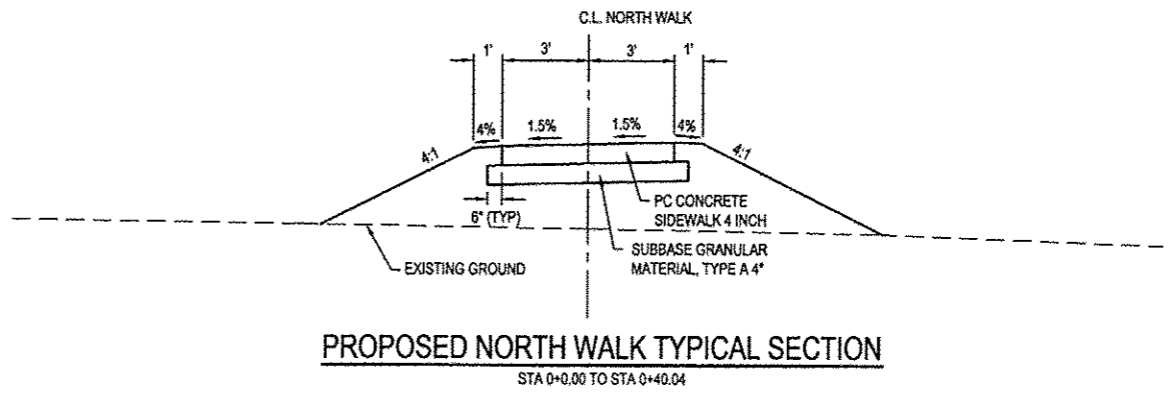
PROPOSED WEST WALK TYPICAL SECTION
STA 0+05.00 TO STA 0+15.00



PROPOSED NORTH WALK TYPICAL SECTION
STA 0+40.04 TO STA 0+60.04



PROPOSED WEST WALK TYPICAL SECTION
STA 0+00.00 TO STA 0+05.00
STA 0+15.00 TO STA 1+52.08



PROPOSED NORTH WALK TYPICAL SECTION
STA 0+00.00 TO STA 0+40.04

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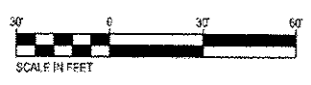
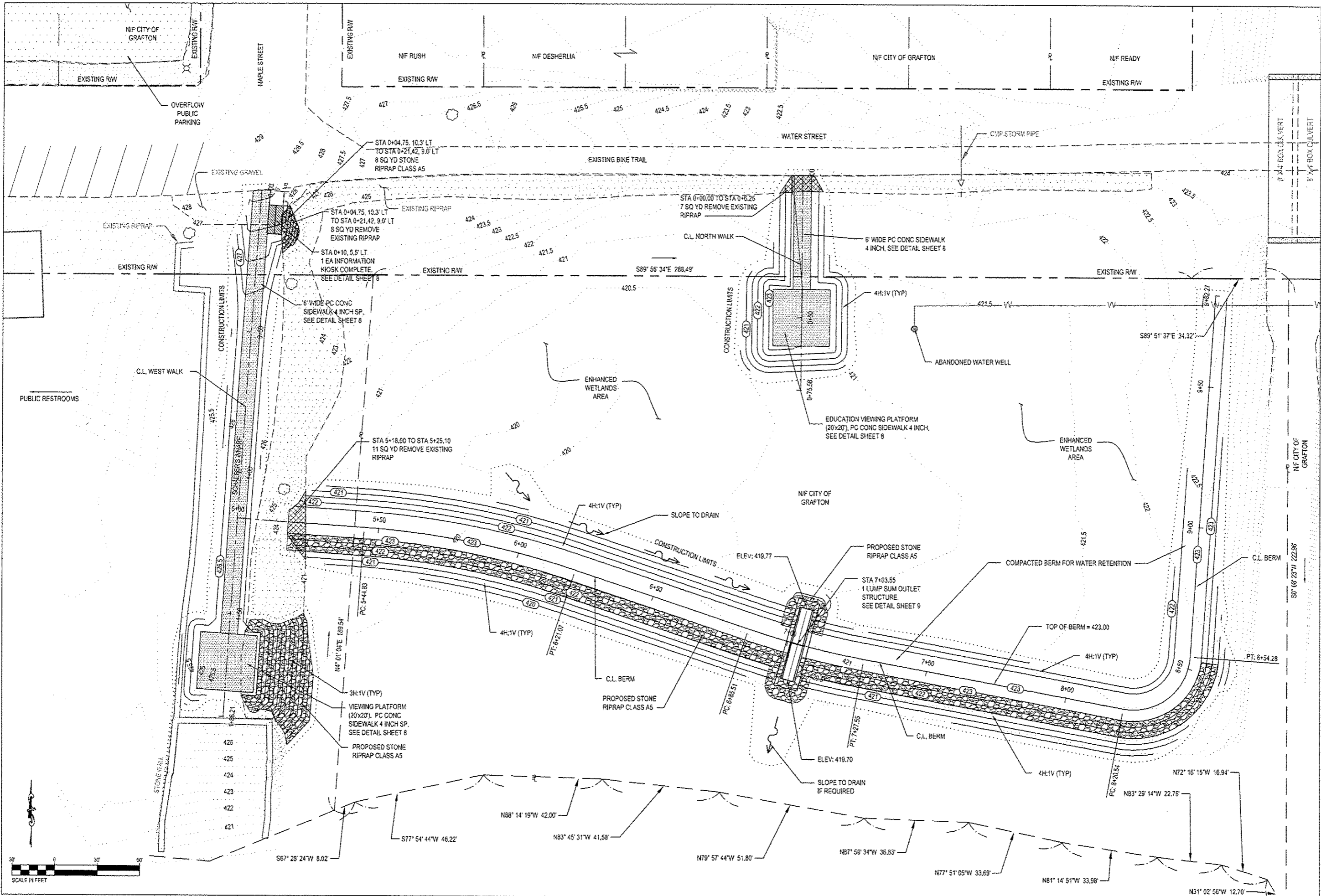
**MARQUETTE AND JOLIET WETLANDS
NATURE WALK**

PROPOSED TYPICAL SECTIONS

JUNEAU
ENGINEERING & LAND SURVEYING
Professional Design Firm License No. 164000389

JAI Job No.: E1080003 Scale: 1" = 30'
Date: 5-29-14
Dr. REGUANE CA RAK

P:\Grafton\E108003 Nature Trail\DWG\E108003.dwg, Plotted: Jun 12, 2014 - 10:04am



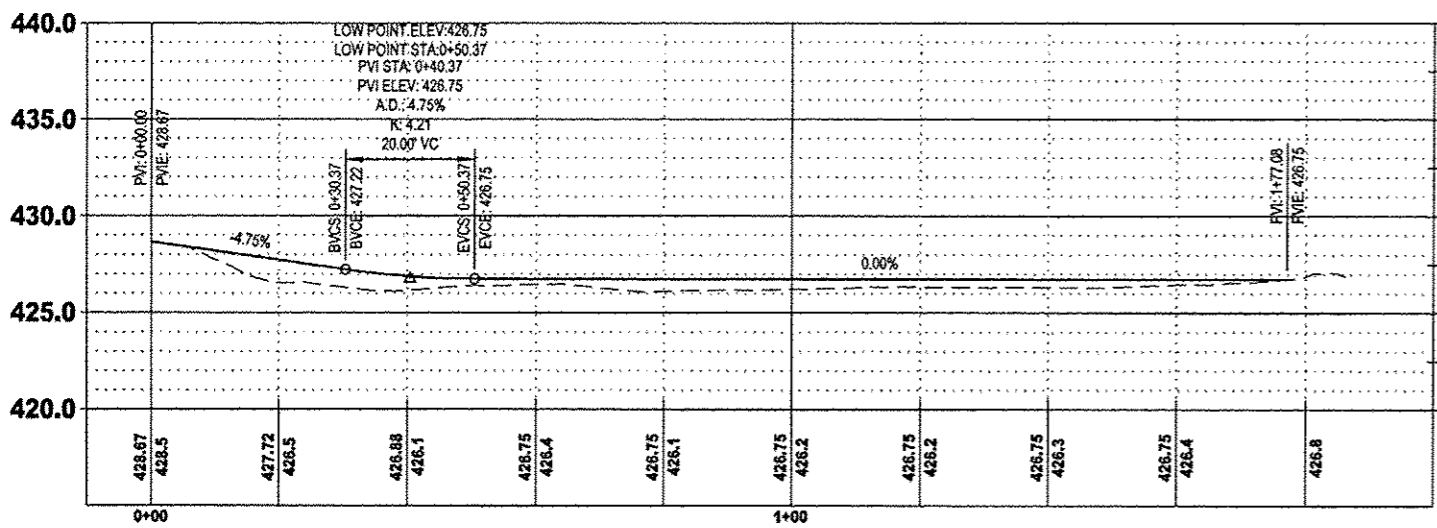
CONTRACT NO. 97565	SECTION NO. 06-00015-00-HP
REVISIONS	

**MARQUETTE AND JOLIET WETLANDS
NATURE WALK
SITE PLAN**

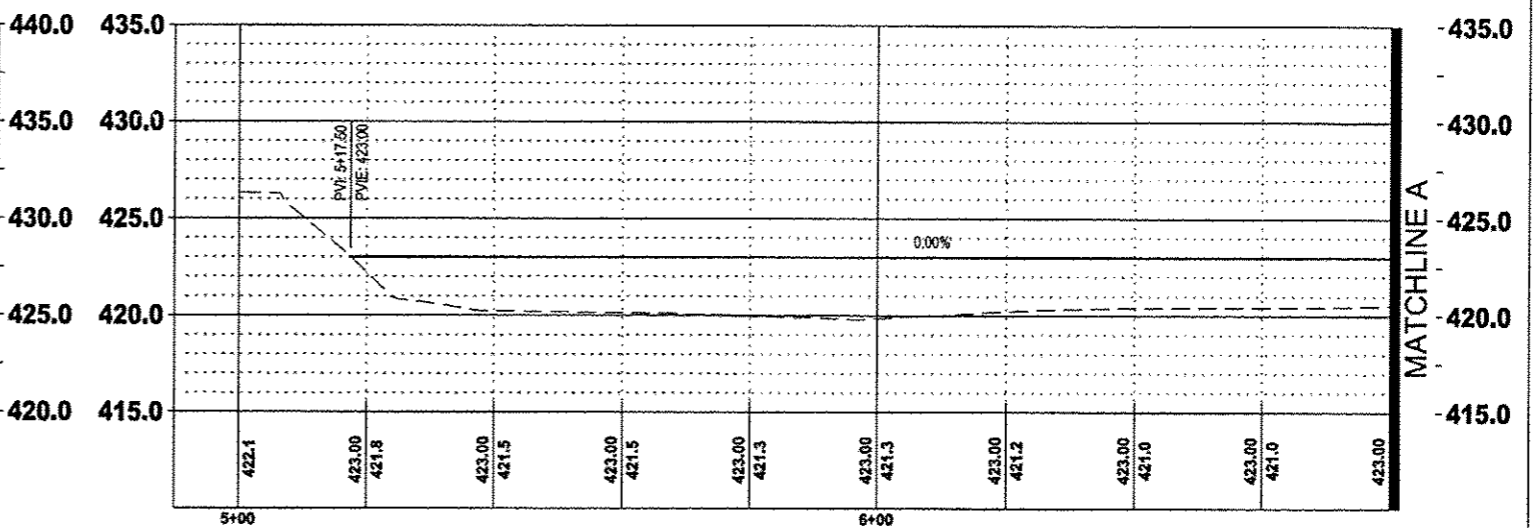
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ENGINEERING & LAND SURVEYING
Professional Corporation License No. 34,003,838

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 DR: RGL/JAME CK: RAK

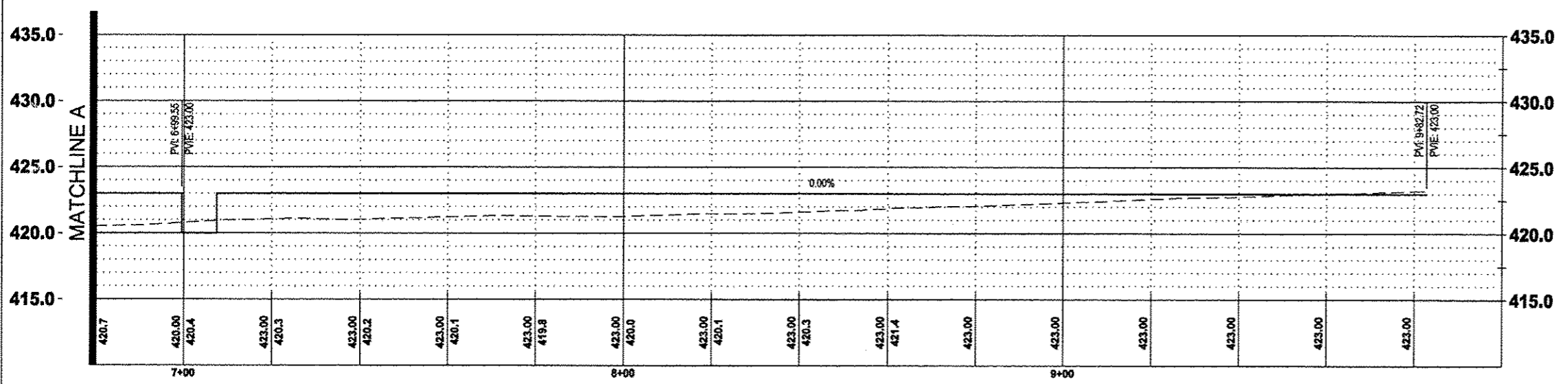
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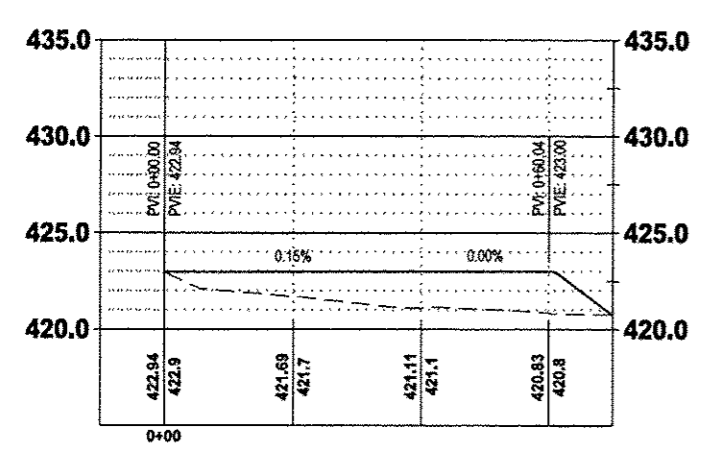
WEST WALK



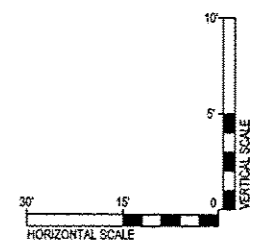
BERM



BERM



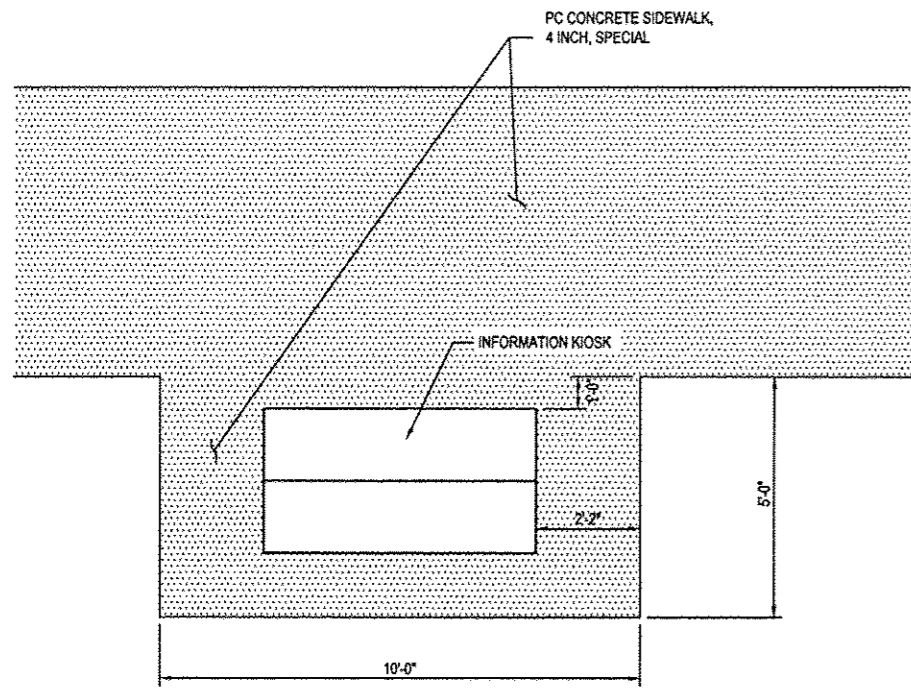
NORTH WALK



CONTRACT NO. 97565	SECTION NO. 06-00015-00-HP
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MARQUETTE AND JOLIET WETLANDS
 NATURE WALK
 SIDEWALK AND BERM PROFILES

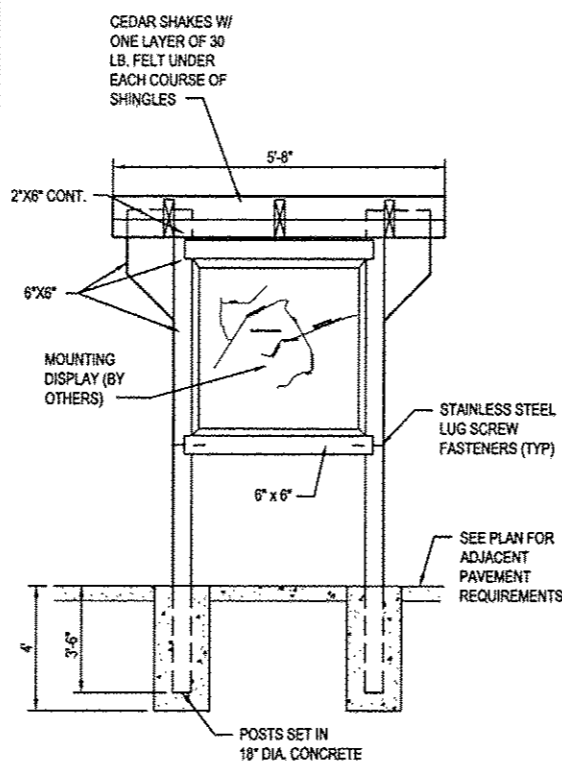
JUNEAU
 ENGINEERING & LAND SURVEYING
 Professional Design Firm License No. 154-000389
 JAL Job No.: E108003 | Scale: 1" = 30'
 Date: 5-29-14
 Dr. RIGUAME CK RAK



INFORMATION KIOSK DETAIL

N.T.S.

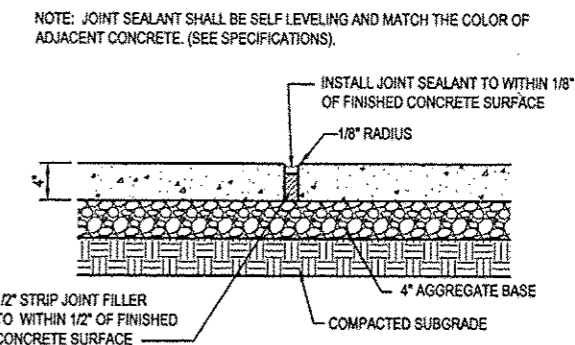
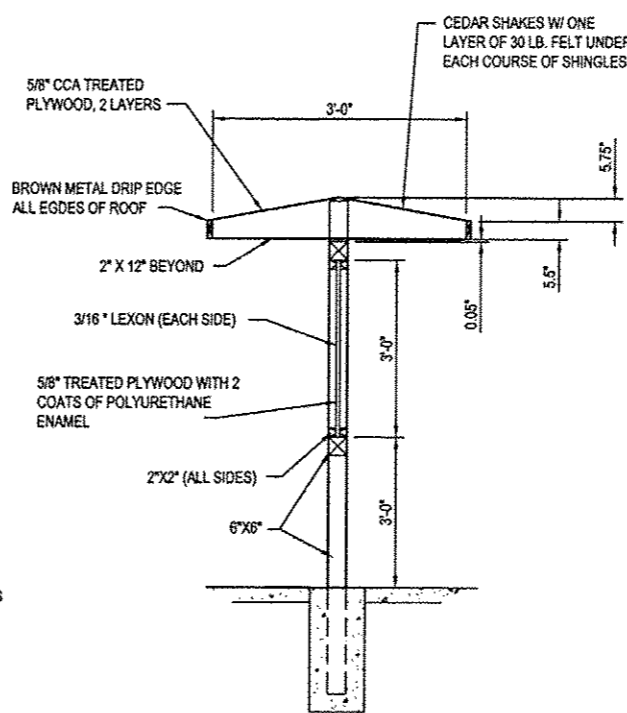
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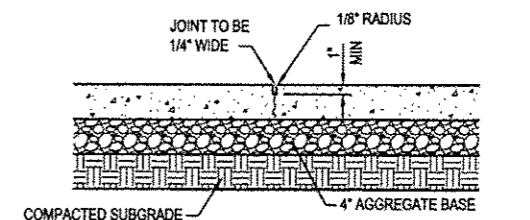
INFORMATION KIOSK

N.T.S.

2



SIDEWALK ISOLATION (EXPANSION) JOINTS



SIDEWALK CONTROL (CONTRACTION) JOINTS

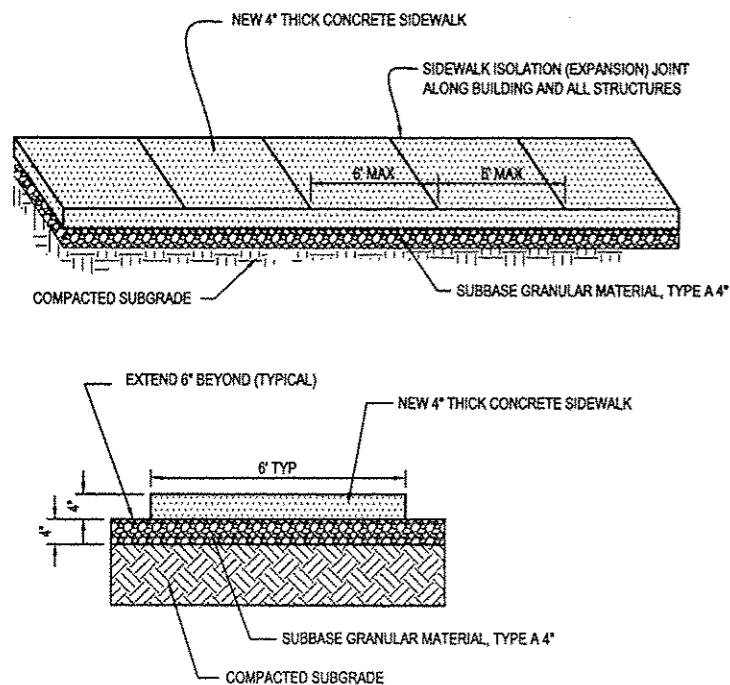
NOTE: ALL JOINTS WHETHER SAWED, FORMED, OR SCORED INTO THE CONCRETE SURFACE SHALL PROVIDE A 1/8" WIDE JOINT, 1/3 OF THE SLAB THICKNESS DEEP WITH THE SQUARED EDGES TOOLED OR BEVELED TO PROVIDE THE EQUIVALENT TO A 1/8" RADIUS. EXPANSION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 100 FT OR AS SHOWN ON THE PLAN. REFER TO DRAWINGS FOR JOINT LOCATIONS.

SIDEWALK EXPANSION AND CONTROL JOINTS

N.T.S.

3

- NOTE:
- CROSS SLOPES OF ALL WALKS SHALL NOT EXCEED 1.75%
 - EDGES OF ALL WALKS SHALL BE FINISHED WITH AN 1/8" RADIUS
 - UNLESS CONCRETE IS SPECIFIED TO BE STAMPED, ALL WALKS SHALL RECEIVE A UNIFORM MEDIUM BROOM FINISH
 - EXPANSION JOINT SHALL BE PLACED IN WALK AT MAXIMUM 100' INTERVALS AND AT ALL CHANGES IN DIRECTION, AND WHERE PROPOSED CONCRETE MEETS EXISTING CONCRETE.

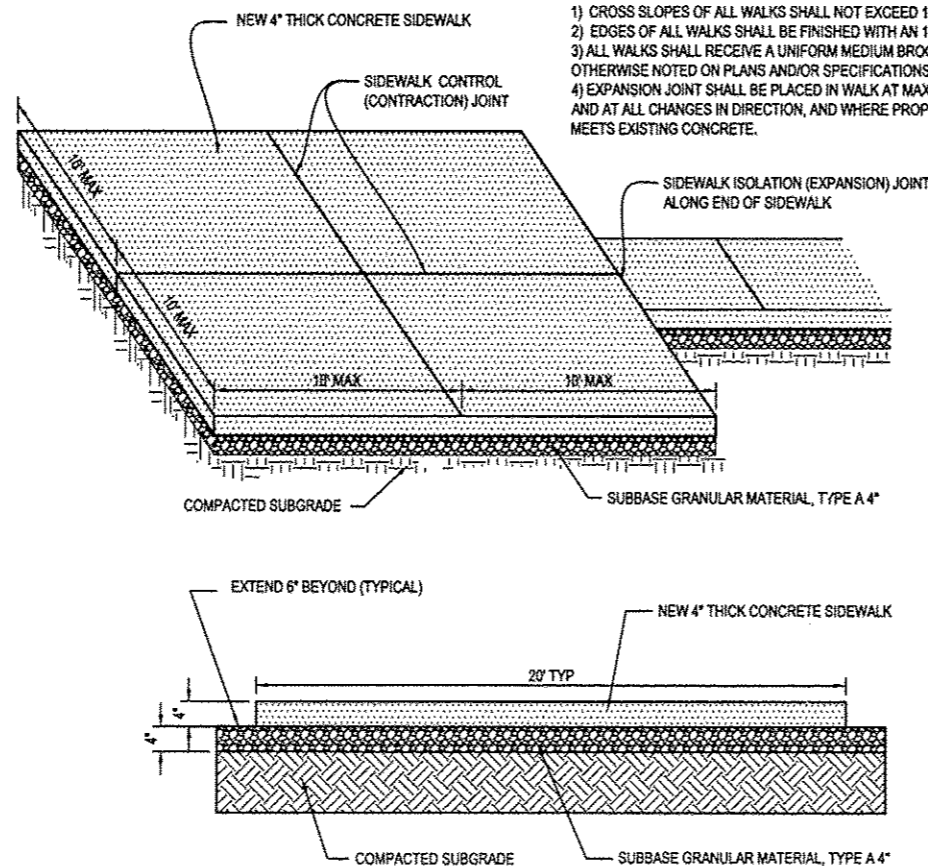


PORTLAND CEMENT CONCRETE SIDEWALK, 4"

N.T.S.

4

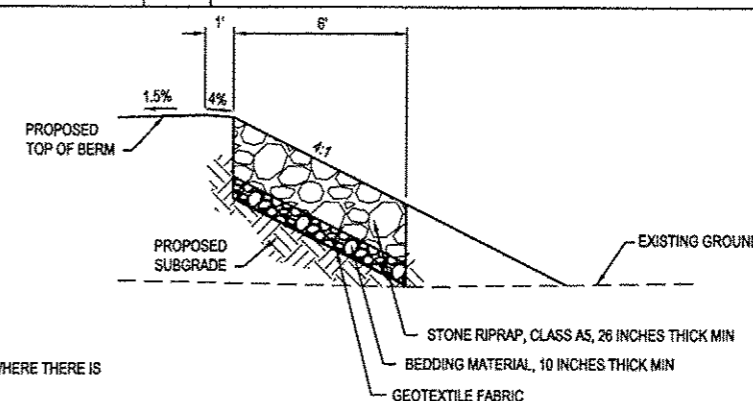
- NOTE:
- CROSS SLOPES OF ALL WALKS SHALL NOT EXCEED 1.75%
 - EDGES OF ALL WALKS SHALL BE FINISHED WITH AN 1/8" RADIUS
 - ALL WALKS SHALL RECEIVE A UNIFORM MEDIUM BROOM FINISH UNLESS OTHERWISE NOTED ON PLANS AND/OR SPECIFICATIONS.
 - EXPANSION JOINT SHALL BE PLACED IN WALK AT MAXIMUM 100' INTERVALS AND AT ALL CHANGES IN DIRECTION, AND WHERE PROPOSED CONCRETE MEETS EXISTING CONCRETE.



VIEWING PLATFORM

N.T.S.

5

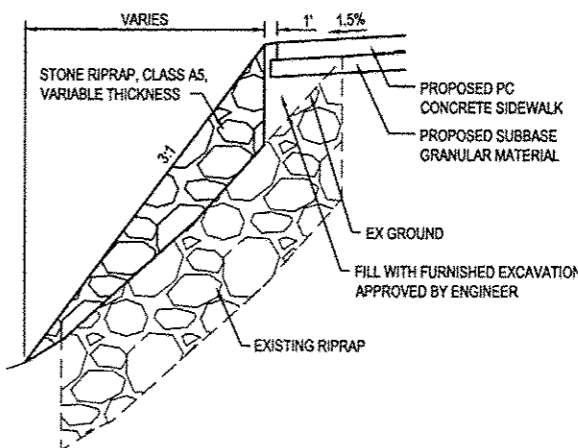


STONE RIPRAP CLASS A5 (SQ YD) DETAIL

N.T.S.

6

TO BE USED IN AREAS WHERE THERE IS NO EXISTING RIPRAP



STONE RIPRAP CLASS A5 (TON) DETAIL

N.T.S.

7

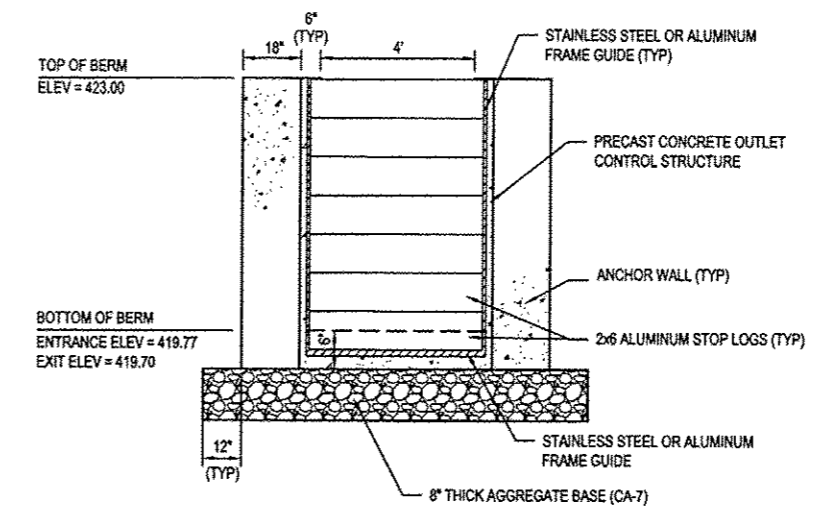
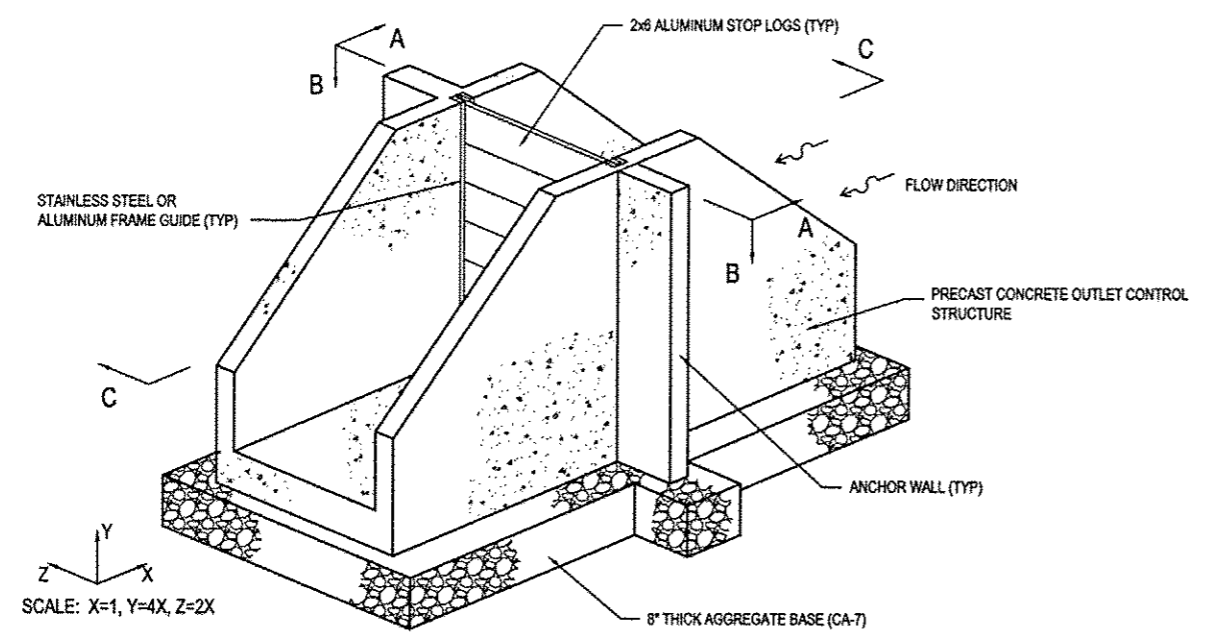
TO BE USED IN AREAS WHERE THERE IS EXISTING RIPRAP

CONTRACT NO. 97565 SECTION NO. 06-00015-00-HP REVISIONS

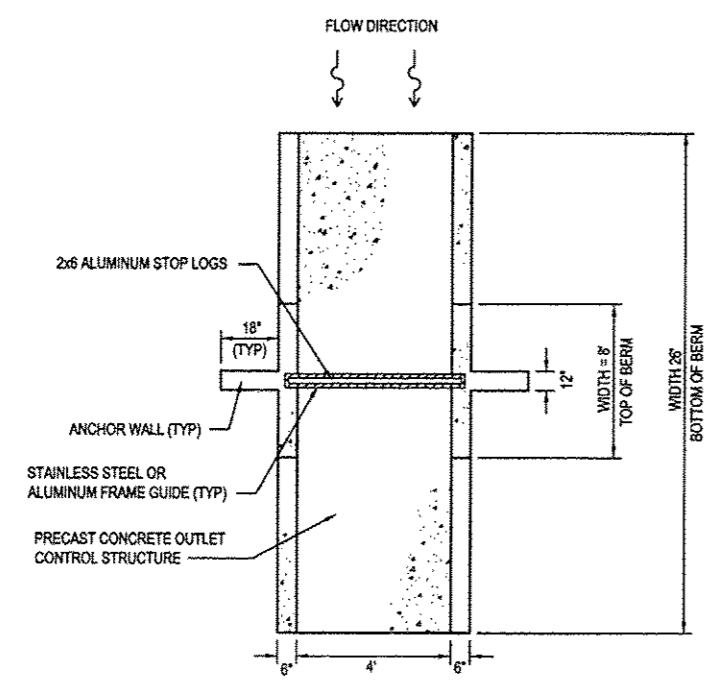
MARQUETTE AND JOLIET WETLANDS NATURE WALK

MISCELLANEOUS DETAILS

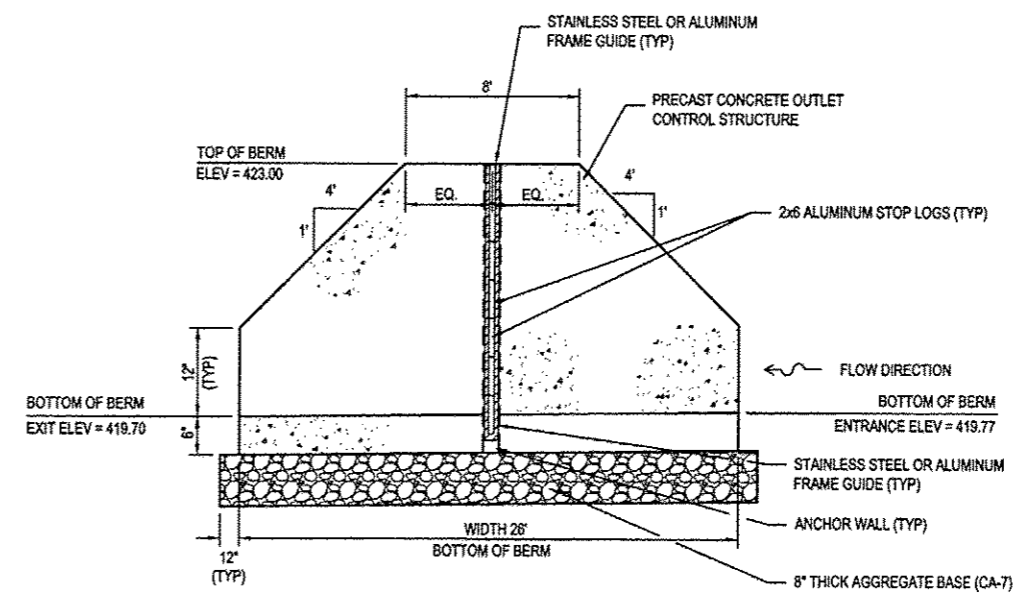
JUNEAU ENGINEERING & LAND SURVEYING Professional Design Firm License No. 164-00038 JAL Job No.: E108003 Scale: 1" = 30' Date: 5-29-14 Dr. REGUANE CK RAK



SECTION A-A



SECTION B-B



SECTION C-C

OUTLET STRUCTURE

N.T.S.

1
9

CONTRACT NO. 97565 SECTION NO. 06-00015-00-HP REVISIONS

MARQUETTE AND JOLIET WETLANDS
NATURE WALK
OUTLET STRUCTURE DETAIL

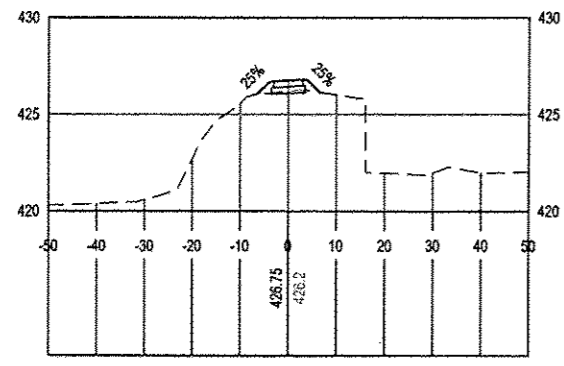
JUNEAU
ENGINEERING & LAND SURVEYING
Professional Design Firm License No. 161000389

JAL Job No.: E108003 Scale: 1" = 30'

Dr. REGUIE CK RAK Date: 5-28-14

WEST WALK CROSS SECTIONS

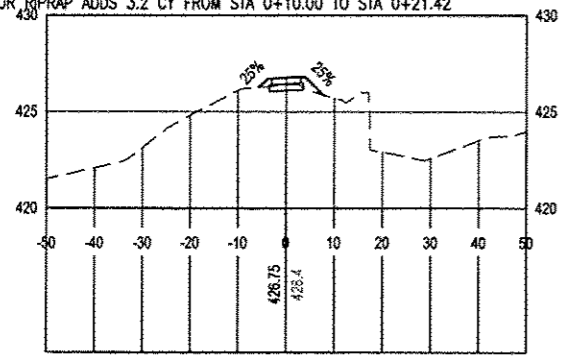
EARTHWORK AT 1+00.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	0.84	2.5	9.6
FILL	2.28	4.1	7.4



1+00.00

EARTHWORK AT 0+50.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	1.88	5.7	7.1
FILL	2.16	2.7	3.3

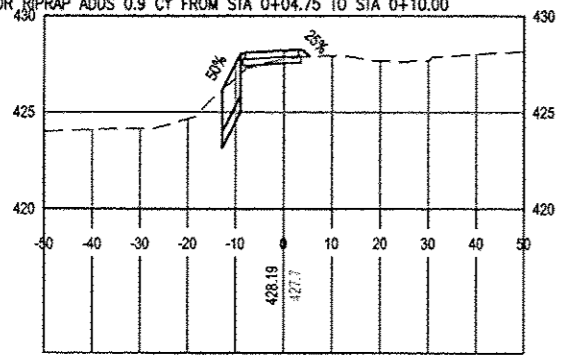
* CUT FOR RIPRAP ADDS 3.2 CY FROM STA 0+10.00 TO STA 0+21.42



0+50.00

EARTHWORK AT 0+10.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	1.45	1.4*	1.4
FILL	1.50	0.6	0.6

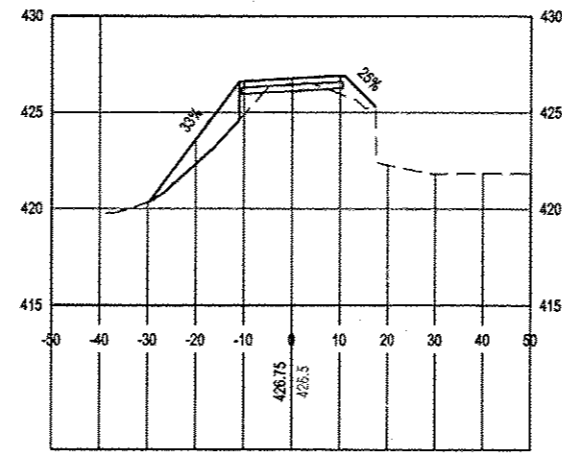
* CUT FOR RIPRAP ADDS 0.9 CY FROM STA 0+04.75 TO STA 0+10.00



0+10.00

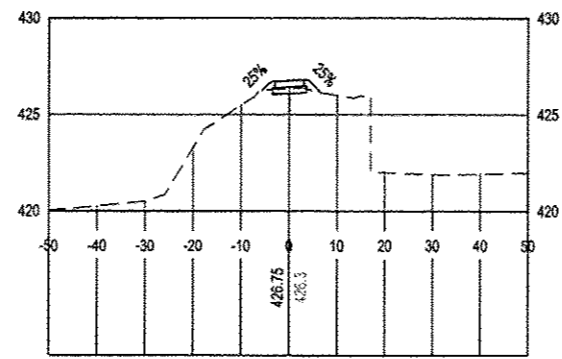
KIOSK LT

EARTHWORK AT 1+65.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	4.01	1.6	13.5
FILL	8.85	2.9	14.0



1+65.00

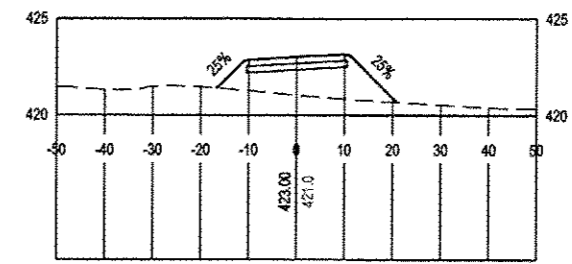
EARTHWORK AT 1+50.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	1.64	2.3	11.9
FILL	1.73	3.7	11.1



1+50.00

NORTH WALK CROSS SECTIONS

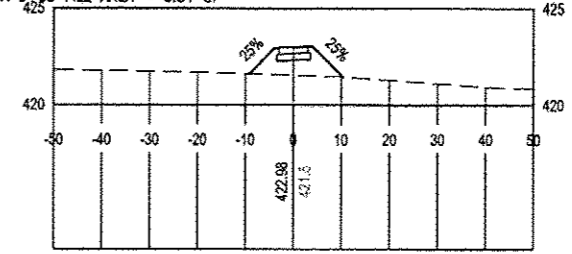
EARTHWORK AT 0+50.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	0	0	0
FILL	45.42	28.2	38.0



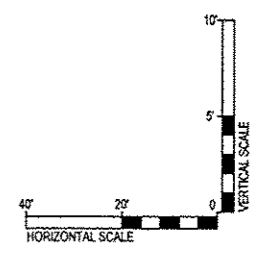
0+50.00

EARTHWORK AT 0+25.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	0	0	0
FILL	15.57	9.0*	9.8

* AT STA 0+05 FILL AREA = 8.81 SF



0+25.00



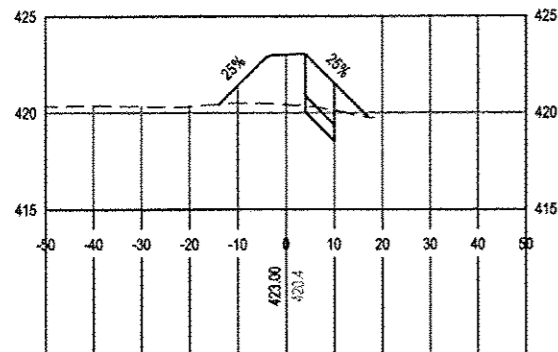
CONTRACT NO. 97565 SECTION NO. 06-00015-00-HP REVISIONS

MARQUETTE AND JOLIET WETLANDS NATURE WALK WALK CROSS SECTIONS

JUNEAU ENGINEERING & LAND SURVEYING
Professional Design Firm License No. 18400388
JAL Job No.: E108003 Scale: 1" = 30'
Date: 5-28-14
Dr. REGUINE CK PAK

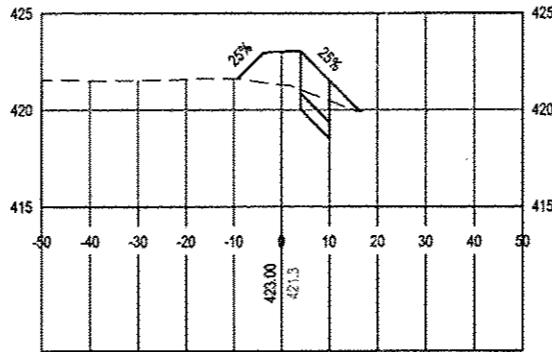
BERM CROSS SECTIONS

EARTHWORK AT 6+50.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	5.95	8.7	19.7
FILL	37.47	79.5	196.0



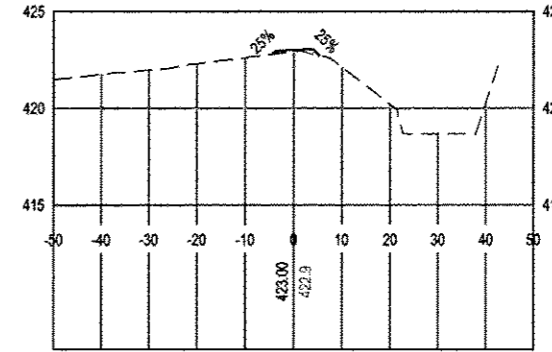
6+50.00

EARTHWORK AT 8+00.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	8.93	17.6	64.4
FILL	21.24	41.2	339.8



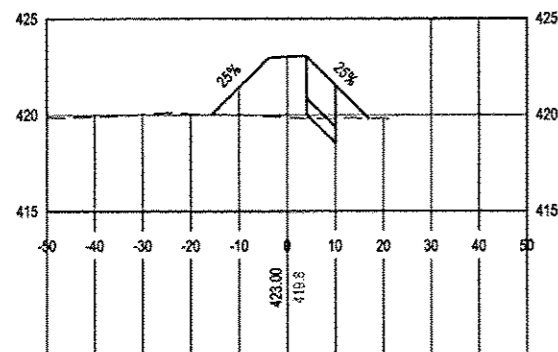
8+00.00

EARTHWORK AT 9+50.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	0	0	86.9
FILL	1.29	19.3	399.3



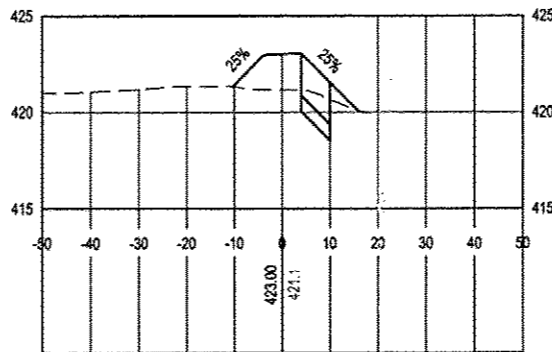
9+50.00

EARTHWORK AT 6+00.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	3.40	7.9	11.0
FILL	48.35	82.3	116.5



6+00.00

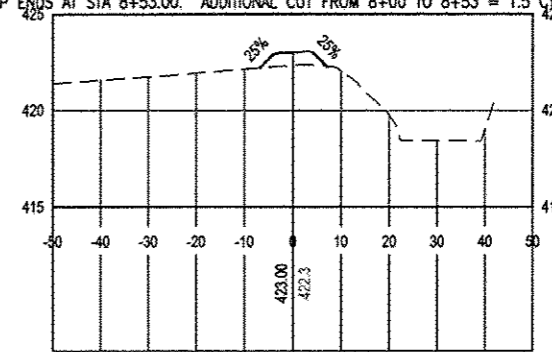
EARTHWORK AT 7+50.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	10.08	14.2	46.8
FILL	23.22	41.1	298.6



7+50.00

EARTHWORK AT 9+00.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	0	1.5	86.9
FILL	7.46	19.3	391.2

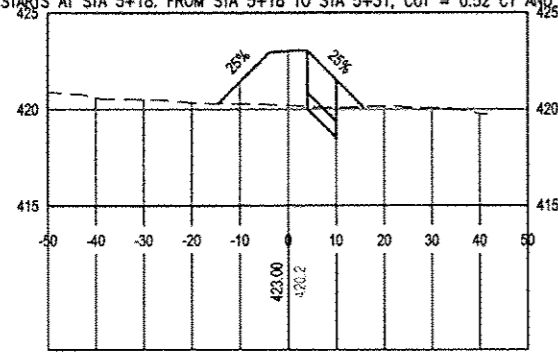
* RIPRAP ENDS AT STA 8+53.00. ADDITIONAL CUT FROM 8+00 TO 8+53 = 1.5 CY



9+00.00

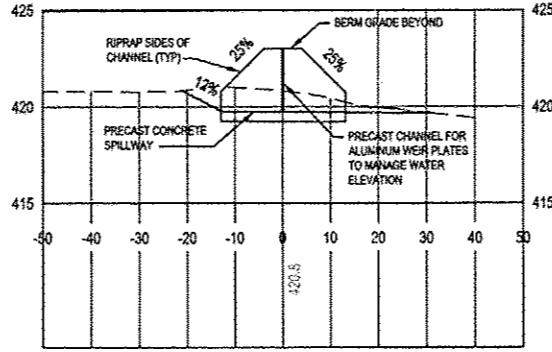
EARTHWORK AT 5+50.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	5.09	2.6	3.1
FILL	40.5	26.1	34.2

* BERM STARTS AT STA 5+18. FROM STA 5+18 TO STA 5+31, CUT = 0.52 CY AND FILL = 8.12 CY



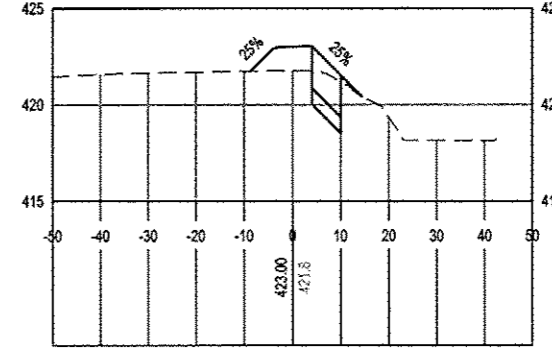
5+50.00

EARTHWORK AT 7+00.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	7.97	12.9	32.6
FILL	28.96	61.5	257.5

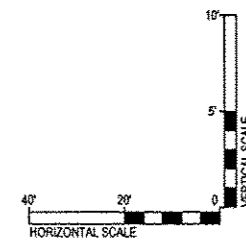


7+00.00
OUTLET CONTROL

EARTHWORK AT 8+50.00			
CUT/FILL	SECTION AREA (SF)	SECTION VOLUME (CY)	CUMM. VOLUME (CY)
CUT	13.75	21.0	85.4
FILL	13.39	32.1	371.9



8+50.00



CONTRACT NO. 97565 SECTION NO. 06-00015-00-HP REVISIONS

MARQUETTE AND JOLIET WETLANDS
NATURE WALK
BERM CROSS SECTIONS

JUNEAU
ENGINEERING & LAND SURVEYING
Professional Design Firm License No. 134,003398
JAI Job No.: E108003 Date: 5-29-14
Dr. REGUAME CK RAK Scale: 1" = 30'