Book #1

BEAR TRAP - LEY CREEK

CONTRACT # 2

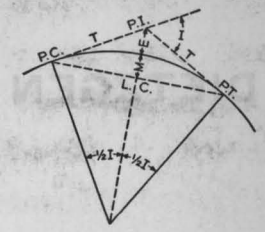
125.102

403NW

DIETZGEN

CURVE AND REDUCTION TABLES

Published by Eugene Dietzgen Co.



CURVE FORMULAS

1. Radius : $R = \dfrac{50}{\sin D/2}$
2. Degree of Curve: $D = 100\dfrac{I}{L}$. Also, $\sin D/2 = \dfrac{50}{R}$
3. Tangent : $T = R \tan \frac{1}{2} I$. Also, $T = \dfrac{T \text{ for } 1° \text{ curve}}{D} + C.$
4. Length of Curve: $L = 100\dfrac{I}{D}$
5. Long Chord : $L.C. = 2R \sin \frac{1}{2} I.$
6. Middle Ordinate: $M = R\,(1 - \cos \frac{1}{2} I)$
7. External : $E = \dfrac{R}{\cos \frac{1}{2} I} - R.$ Also, $E = T \tan \frac{1}{4} I.$

EXPLANATION AND USE OF TABLES

Given P.I. Sta. 83+40.7, I = 45° 20′ and D = 6°30′ find:

Stations—P. C. = P. I. − T. $T = \dfrac{T \text{ for } 1° \text{ Curve}}{D} + C.$ From Tables V and VI $T = \dfrac{2392.8}{6.5} + .197 = 368.32 = 3 + 68.32.$ Sta. P. C. = 83+40.7 − (3+68.32) = 79+72.38. P. T. = P. C. + L, and $L = 100\,\dfrac{I}{D} = 100\,\dfrac{45.33}{6.5} = 697.38$ Therefore, P. T. = (79+72.38) + (6+97.38) = 86+69.76.

Offsets—Tangent offsets vary (approximately) directly with D and with the square of the distance. From Table III Tangent Offset for 100 feet = 5.669 feet. Distance = 80 − Sta. P. C. = 27.62. Hence offset $= 5.66 \times \left(\dfrac{27.62}{100}\right)^2 = .432$ ft. Also, square of any distance, divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(27.62)^2 \div (2 \times 881.95) = .432$ ft.

Deflections—Deflection angle = ½ D for 100 ft., ¼ D for 50 ft., etc. For "X" ft. Deflection Angle (in minutes) = .3 × X × D. For Sta. 80 of above curve Deflection Angle = .3 × 27.62 × 6.5 = 53.86′. Also Deflection Angle = dfl. for 1 ft. from Table III × X = 1.95 × 27.62 = 53.86′. For Sta. 181 Deflection Angle $= 53.86' + \dfrac{6°\ 30'}{2} = 4°\ 8.86'.$

Externals—From Table V for 1° curve, with central angle of 45° 20′, E = 479.6. Therefore, for 6° 30′ curve, $E = \dfrac{479.6}{6.5} +$ Correction from Table VI = 7.378 + .039 = 7.417.

125-102

5-3-72

Pre-Construction meeting this date at 7th North Pt Bridge at 10 am. between Empire pipeline (Tony Lucido & Leon Cook) and Allocemos & Spina (Joe Lane & R. Rabidoux)

Discussed project stakeout Contractor requested stakeout of permanent R.O.W. for Monday May 8, 1972 in order to begin clearing operations. Also discussed location of office trailer in the vicinity of pole 44.

Hank Abbott also on right to discuss the removal to begin Monday May 8, 1972

Discussed outlets into Onondaga Lake and access to the project in the vicinity of penn Central Railroad. Informed contractor that further permission must be obtained from the Railroad.

5-8-72

Scheduled clearing did not begin this date due to the fact that a signed contract had not been obtained.

5-15-72
Visited JOBSITE THIS DATE
NO WORK BEGUN

5-16-72
VISITED JOBSITE THIS DATE
NO WORK BEGUN

5-18-72 EMPIRE PIPE

ISABELL TREE CO.

CLEARING OPERATIONS BEGUN THIS DATE FROM APPROX. STA. 58+35 TO STA. 56±

CONTRACTOR CUTTING TREES AND MOVING EQUIPMENT TO JOBSITE NO MATERIAL HAULED AWAY THIS DATE.

STAKEOUT of PERMANENT R.O.W. IS COMPLETE from STA. 58+35 TO STA. 45+35 RT & LT.

INFORMED HANK ISABELL THAT WRITTEN PERMISSION FROM INTERNATIONAL HARVESTER TO USE THEIR PROPERTY for LANDING TREES AND AN AGREEMENT FOR RESTORATION of SAID PROPERTY.

INFORMED CONTRACTOR THAT NOTHING COULD BE BURIED

IN SPOIL AREAS UNLESS WRITTEN PERMISSION IS OBTAINED TO USE THE SPOIL AREAS AND PERMISSION IS OBTAINED TO BURY THE DEBRIS.

5-19-72

(ISABELL TREE CO.)

CONTINUED CLEARING FROM APPROX STA. 58+35 TO STA. 565

CONTRACTOR CUTTING TREES AND HAULING ONTO INTERNATIONAL HARVESTER PROPERTY TO BE CUT AS SHOWN IN PICTURE #1. PERMISSION HAS NOT BEEN SECURED TO HAUL ON THEIR PROPERTY. AGAIN CONTACTED HANK ISABELL AND INFORMED HIM THAT NO MATERIAL IS TO BE HAULED ON INTERNATIONAL HARVESTER PROPERTY UNTIL WRITTEN PERMISSION IS RECEIVED AND ANY MATERIAL THAT HAS BEEN PLACED SHOULD BE REMOVED IMMEDIATELY.

ALSO INFORMED LEON COOK OF EMPIRE PIPE OF THIS ACTION AND HE WILL CONTACT INTERNATIONAL HARVESTER.

George Simonds of International Harvester also stopped on jobsite this date and requested that hauling operations be halted until an agreement is reached

5-22-72

(Isabell Tree Co)
Continued clearing from approx. Sta. 58+35 to Sta. 55±

Contractor given permission from Crouse Hinds to enter their property for access to the job. A key was secured for the gate.

Contractor cutting trees and hauling onto International Harvester property to be cut.

George Simonds of International Harvester on jobsite in a.m. Permission was given to the contractor to use the area behind the blacktop parking lot for cutting trees if the contractor would level the area for an access road and at the completion of the

JOB, would GRADE THE AREA TO THE OWNERS SATISFACTION.

Advised CONTRACTOR TO SECURE from BUCKEYE PIPELINE, THE ACTUAL DEPTH of THE 10" GAS MAIN THAT CROSSES THE CHANNEL AT STA. 15+90

Also from NIAGARA MOHAWK, THE ACTUAL DEPTH of THE 20" GAS MAIN THAT CROSSES THE CHANNEL AT STA. 16+85

ADVISED THE CONTRACTOR TO NOTIFY THE ONONDAGA COUNTY WATER AUTHORITY of A possible LEAK in AIR RELEIF MANHOLE SHOWN in PICTURE #3 AT STA. 13+45 RT

CONTRACTOR SETTING up office TRAILER.

5-23-72

ISABELL TREE CO. Continued Clearing from approx. STA. 50± to STA. 52±. Cutting TREES and Hauling onto Midstate PROPERTY TO BE CUT.

CONTRACTOR given PERMISSION from MIDSTATE EQUIPMENT TO Haul onto THEIR PROPERTY.

AGAIN informed CONTRACTOR THAT THIS PERMISSION MUST BE OBTAINED in WRITING.

CONTACTED JOHN HALE - Onondaga COUNTY WATER AUTHORITY in REGARDS TO A POSSIBLE LEAK IN THEIR AIR RELEIF MANHOLE AT STA. 13+45 RT. THEY WILL CHECK INTO IT.

Continued SETTING UP office TRAILER.

informed MARK ISABELL THAT

THE GATE TO CROUSE HINDS PROPERTY SHOULD BE LOCKED WHENEVER THEY LEAVE THE PREMISES.

5-24-72

ISABELL TREE CO. CONTINUED CLEARING OPERATIONS FROM STA. 48+47 TO STA. 51+47 CUTTING TREES AND HAULING ONTO MIDSTATE EQUIPMENT PROPERTY TO BE CUT.

CONTRACTOR ALSO HAULED ONTO ALSTATE PETROLEUM PROPERTY. INSTRUCTED CONTRACTOR TO STOP UNTIL PERMISSION IS OBTAINED.

BEGAN LEVELING PROPERTY BEHIND INTERNATIONAL HARVESTER PARKING LOT TO USE AS A HAUL RD.

5-25-72

ISABELL TREE Co Continued Clearing operations from STA. 48± to STA. 51± Continue Cutting TREES And Hauling onto SYRACUSE TERMINAL PARK PROPERTY TO BE CUT.

Also Hauling TREES off of THE R.O.W.

MEETING AT 10 A.M THIS DATE Included:

Empire pipeline - B. Wynn
T. Mucedola
B. Grango

C&S JJL
DMF
RER

discussed THE Elimination of Rip Rap ON THE LEFT slope of THE CHANNEL from Route 81 WEST - THE CHANNEL THEN would BE EXCAVATED from THE RT SIDE Eliminating WORK Being done on NEW YORK STATE PROPERTY. Final decision TO BE made By J. Hendigan

Also discussed A Ramp AT THE Railroad STA. 20±. A PERMIT will BE Applied for.

discussed AREAS WHERE THE EXISTING CREEK EXTENDS BEYOND Slope limits THEN no fill shall Placed TO ESTABLISH Banks

Also discussed A detail Survey once A month for payment. Contractor REQUESTED payment Twice A month.

EXCAVATION MATERIAL TO BE Hauled TO THE Town of Salina dump.

Informed Contractor TO OBTAIN WRITTEN PERMISSION from Property OWNERS TO Spoil OUTSIDE of THE R.O.W.

Contractor will submit drawings for control structure for approval.

5-26-72
Isabell Tree Co. continued clearing operations from sta. 48± to sta. 51±. Continued hauling off of R.O.W.

Contractor refuses to cut any more trees until Empire pipeline has secured written permission from property owners.

5-29-72 Holiday

5-30-72

Isabell Tree Co. continued clearing operations.

Cutting trees on International Harvester property and hauling off of R.O.W.

5-31-72

Isabell Tree Co. cutting trees on Syracuse Terminal Park property and hauling off of R.O.W.

Contractor shut down at 10 am due to weather conditions.

Met with Leon Cook of Empire this date to discuss the start of excavation operations (approx. 2 weeks). Also informed him that we will stake out one side of the channel

and he will have to transfer grades to the other side. And that we will need at least three days notice prior to excavating.

Also that he is to notify Buckeye pipeline in advance of excavation, so that they can give us an exact location of their 10" gas main.

6-1-72 ✓
No work this date due to bad weather conditions.

Walked jobsite this date with Leon Cook from Park St to 7th North St. (Rt & Lt)
Discussed location of haul rd and clearing involved for haul rd. / Contractor to begin excavation with Draglite from Sta. 58+35 Rt side on Crouse Hinds property. Contractor requests stakeout every 100' on one side of the channel for 6-8-72

6-2-72
Visited jobsite - no work this date due to weather conditions. Stakeout request to N. Ianuzi for 6-8-72. Sta. 58+35 to 45± Rt.
6-5-72
Talked with Hank Isabell this date and he will resume work Thursday 6-8-72

Dan Frankes working on securing agreement between Onondaga County and Crouse Hinds.

6-13-72

MET WITH Lead Cook of Empire pipeline THIS date and informed Him To Contact HANK ISABELL TO HAVE HIM Resume Clearing operations immediately.

6-19-72

MET WITH Lead Cook and HANK ISABELL in Regards TO RESUMING CLEARING OPERATIONS. ISABELL IS TO START THIS DATE And Continue until CLEARING IS Complete.

HAULING EQUIPMENT onto THE SITE THIS P.M.

Requested STAKEOUT IN AREA of THE LAGOON AND CONTROL STRUCTURE. STA 2+50

6-20-72

No Work due TO Heavy Rain.

7-25-72

MET THIS date WITH JJL and DMF TO Review plans & Specifications

Talked with T. Mucedola and PROJECT TO Begin 7-31-72

7-26-72

CHECKED Power Pole and Telephone Pole Relocations. Have not BEEN done AS of THIS DATE.

7-31-72 ✓ VARIABLE 76°

CONTRACTOR BEGAN LEVELING EXISTING RT BANK FROM STA. 58± TO STA. 48±

ALSO BEGAN CONSTRUCTING CONTROL STRUCTURE AT STA. 2+50±.

DROVE 3" PIPE WITH AIR HAMMER TO A DEPTH of 16'.

INSTRUCTED CONTRACTOR TO TIE STRUCTURE INTO EXISTING BANKS.

8-1-72 ✓ SUNNY - 78°

CONTRACTOR CONTINUED LEVELING EXISTING RT BANK AND / CLEARING TREES FROM STA. 58± / TO STA. 48±

PLACED 40 LF of 48" CMP AT STA. 45± RT TO ALLOW TEMPORARY DRAINAGE for HAUL ROAD.

CONTINUED BUILDING CONTROL STRUCTURE AT / STA. 2+50

DROVE 6 - 3" PIPE WITH AIR HAMMER TO A DEPTH of 16'. PLACED CORRUGATED METAL SHEETS APPROX 27½" IN DEPTH ACCROSS CHANNEL

INFORMED CONTRACTOR THAT LOCATION of ACCESS ROAD FROM STA. 46± TO STA. 40± WILL HAVE TO BE ESTABLISHED DURING CONSTRUCTION, SO IT WILL NOT END UP WITHIN THE CHANNEL EXCAVATION DUE

THE NUMEROUS ANGLES INVOLVED.

8.2.72 ✓ VARIOUS 80°

Completed CONTROL STRUCTURE AT STA. 2+50.

Placed CHAIN LINK FENCE ACCROSS TOP of STRUCTURE. CHECKED final ELEVATION TO BE 364.9.

Began EXCAVATING LAGOON from STA. 2+50 TO STA. 4+50. EXCAVATED 5' BELOW EXISTING CHANNEL INVERT

CONTRACTOR BEGAN Building ACCESS Road from STA. 46± TO STA. 40+20

NOTE:
AREA of ACCESS Rd from STA. 46± TO STA 40+20 IS for TEMPORARY ACCESS. TO SERVICE Road.

Informed Contractor
that an additional 10'
section of chain link
fence would have to
be placed on the north
side due to the bank
sliding in. (Control structure)

VARIABLE 77°
EMPIRE

8-3-72

Contractor placed an
additional 10' of chain
link fence on control
structure per instructions
for proper tie in to
North Bank.

Completed excavating Detention
Lagoon from Sta. 2+50
to Sta. 4+50 in accordance
with plans and specifications

Continued construction of
Haul Road (access rd) from
Sta. 46± to Sta. 40+20. RT

Instructed contractor to
maintain entrance road
to Crouse Hinds property.

Isabel Tree Co.
Continued clearing from
Sta. 58+35 to Sta. 48±
cutting trees and hauling

ONTO CROUSE HINDS PROPERTY

8-4-72 ~~Thermometer~~ SUNNY - 72°

ISABELL TREE CO.

CONTINUED CLEARING FROM STA. 58+35 TO STA 48±

INSTRUCTED CONTRACTOR TO HALT OPERATIONS AT 11 AM AS A RESULT OF A LETTER FROM CROUSE HINDS WITH-HOLDING PERMISSION TO ENTER ONTO THEIR PROPERTY UNTIL AGREEMENT IS SIGNED

DISCUSSED WITH E.J.C. AND HE IS TO CONTACT COUNTY ATTORNEY

NO RESOLUTION AS OF THIS DATE.

Cldy - 72°

8 HRS

8-7-72

Contractor Began Access Road from STA. 14+50 to STA. 19+50 RT Along RR Embankment

Placed 40 LF of 48" CMP at STA. 17± (Existing Creek) for Temporary drainage of Access Road.
Checked R.O.W. prior to start

Contractor Began Clearing debris from 7TH North Std Culvert at Sta. 58+75

Isabel Tree

Clearing R.O.W from STA. 18± to STA. 40± RT
Cutting Trees this date

Contractor was given permission to move his Equipment this date

NOTE:

Due to Stop order from Crouse Hinds Co. the following Equipment was idle:

1 - Bucyrus Erie 30 B Drag line with 2½ cy. Bucket

1 - Backhoe - Link Belt 4000 1¼ cy Bucket

1 - 450 Dozer w/winch - Allis Chalmer

Equipment used 8 Hrs

6 - Tent wheelers - Grade
22 B - Bucyrus Erie - 7TH North
450 Dozer Case - Access Rd
2 Chain saws - Homelite

1 Supt - 9
1 Foreman 8
3 Operators 24
3 Laborers 24
6 Teamsters 48

VARIABLE 70°

8-8-72 ✓

Contractor Continued Constructing Access Road from STA. 14+50 RT to STA. 19+50 RT Along RR Embankment.

Completed Cleaning Debris from 7TH North ST Culvert at STA. 58+35 to STA. 58+75

Ismael Mee Co.

Continued Clearing R.O.W from STA. 18± to STA. 40± RT (Area of Service Road.) Cutting Trees This date.

Stakeout Request to A. Ianuzi from STA. 12+08 to STA. 40± RT.

EQUIPMENT USED

6 TEN WHEELERS	48	
22B BYCRUS ERIE	8	3/8 BUCKET
450 CASE DOZER -	8	
2 CHAIN SAWS - HOMELITE	8	
1 ROW BOAT -	4	

← Contractor Removing Debris from Existing Creek and Placed within R.O.W limits

NOTE:
due to Stop Order from Crouse Hinds Co. The following Equipment was idle

1 BYCRUS ERIE 30B Dragline with 2½ C.Y Bucket

1 BACK HOE - link Belt 4000 1¼ C.Y. Bucket

1 450 DOZER / WENCH

8-9-72

Contractor Built Cat Walk across top of Control Structure to enable Contractor to maintain structure during excavation

Cleaning Debris from Creek at Sta. 58± to Sta 55± within limits of R.O.W.

Contractor Began Channel Excavation at Sta. 57+50

Note:
Met with M. Calocerinos, T. Muccedola & L. Cook this date, M. Calocerinos gave Empire permission to fill Niagara Mohawk property to an elevation of 367.0 maximum.

Isabell Tree Co.
Continued Clearing from Sta. 18± to Sta 40± RT

Sunny. Cool 70°

(along area of service Rd)
Cutting trees this date.

Informed Contractor not to excavate portion of channel located on Crouse Hinds property.

Idle Equipment
1 450 AC Dozer/winch 8 hrs (8)
1 - Backhoe - link belt 4000 1¼ c.y. bucket
1 - Bucyrus 30B - Dragline with 2½ c.y. bucket
1½ hrs
Moved to N.M. 1½ hrs

Equip used
22B Bucyrus Erie - 3 hrs
450 Case Dozer - 8 hrs
2 Chain Saws - Homelite 8 hrs
30B Dragline - 5 hrs

8-10-72 / Sunny - Cool 70°

ISABEL TREE Co.

Continued clearing from STA. 58± TO STA. 53± LT. Cutting TREES and Hauling onto INTERNATIONAL HARVESTER PROPERTY.

CONTRACTOR CONTINUED CHANNEL EXCAVATION from STA. 57+50 TO STA. 56+75 LT SIDE Placing EXCAVATED MATERIAL ONTO NIAGARA MOHAWK PROPERTY

NIAGARA MOHAWK on JOBSITE TO STAKEOUT HIGH PRESSURE LINE.

IDLE EQUIPMENT

1 LINK BELT 4000 BACKHOE 1¼ CY BUCKET

EQUIP USED

1 22 B BYCRUS ERIE - 3/8 BUCKET 6 HRS

EVERYTHING ELSE - 8 HRS

8-11-72 ✓ Sunny warm 80°

ISABELL TREE Co
Continued Clearing
from STA. 53± TO STA 49±
Cutting Trees and Hauling
onto Midstate Property

Contractor Continued
Channel Excavation from
STA. 56+75 TO STA 56+00
LT Side. placing
Excavated material
onto Niagara Mohawk
Property

~~Checked Deeds from Cornell~~

Idle Equipment

1- link Belt 4000 Backhoe
with 1¼ C.y. Bucket

8-12-72

ISABELL TREE Co was
Suppose to work this
date. Foreman showed
up But No laborers

8-14-02 VARIABLE 78°

ISABEL TREE Co. CONTINUED CLEARING from STA. 50± TO STA. 47±. CUTTING TREES AND HAULING ONTO TERMINAL PARK PROPERTY.

NOTE: THE REMAINDER of THE CLEARING MUST BE done from THE LEFT side.

CONTRACTOR CONTINUED CHANNEL EXCAVATION from 56+00 TO STA. 54+00 LT SIDE (INCOMPLETE) PLACING EXCAVATED MATERIAL ONTO NIAGARA MOHAWK PROPERTY. A LARGER MACHINE TO BE BROUGHT IN.

INSTRUCTED CONTRACTOR TO SECURE A LETTER of PERMISSION from NIAGARA MOHAWK TO SPOIL on THEIR PROPERTY.

CONTRACTOR CONSTRUCTING A RAFT TO fuel THEIR EQUIPMENT due TO THE FACT THEY HAVE TO EXCAVATE from NIAGARA MOHAWK PROPERTY. THEY HAVE NO ACCESS TO THEIR EQUIPMENT.

CONTRACTOR BEGAN HAULING SPOIL from STA 3± TO STA 2± TO TOWN of SALINA DUMP. TOWN HIGHWAY SUPT. REJECTED SAYING IT WAS TOO WET.

NO RESOLUTION AS of THIS DATE on CROUSE HILLS AGREEMENT

CHECKED depth of CHANNEL TO BE APPROX 7" low

IDLE EQUIPMENT

BACKHOE LINK BELT 4000 WITH 1½ C.Y. BUCKET.

EQUIP USED

16 TRUCKS	2 HRS		
1944 CAT loader			2 HRS
30 B			
22 B		1 Supt	1 foreman
450 CASE		1 lab.	2 labors
450 AC loader		3 operators	
		6 Teamsters	2 HRS

8-15-72 ✓ Sunny - 80°

ISABEL TREE Co Continued Clearing from STA. 56± TO STA. 47±. Cutting Stumps lower. Pulled off THE JOB until Agreement WITH Crouse Hinds IS SETTLED.

Contractor Continued Channel EXCAVATION from STA. 54± TO STA. 53± LT Side (incomplete) Placing Spoil onto Niagara Mohawk property

Contractor Hauling Spoil from STA. 57+50 TO STA. 55± TO Town of Salina dump.

Idle
BACKHOE LINK BELT 4000 WITH 1¼ C.Y. BUCKET
DOZER 450 AC/WENCH

4 TRUCKS

CHECKED DEPTH of CHANNEL TO BE APPROX 5" low

Sunny 76°

8-16-72

Contractor Continued Channel Excavation from Sta. 53± to 52± Lt Side. Placing Spoil on Niagara Mohawk Property.

Contractor Continued Hauling Spoil from Sta. 57+50 to Sta. 55± to Town of Salina dump.

Isabell Tree Co. down this date. No place to work until Crouse Hinds Agreement settled.

I/E

Backhoe - Link Belt 4000 with 1¼ C.Y. Bucket

Dozer AC/Wench 450

2 Trucks

Checked depth to be approx 6" below proposed invert

Cldy - Cool 68°

8-17-72

Contractor Continued Channel Excavation from Sta. 53± to Sta. 51± Lt Side. Placing Spoil on Niagara Mohawk Property.

Continued Hauling Spoil from Sta. 57+50 to Sta 55± to Town of Salina dump.

Also Excavated Channel from Sta. 57+50 to Sta 58+35 Lt. Slope Bank for Rip Rap.

Checked Depth of Channel to be approx 6" low.

Met with Metropolitan Water Board on Jobsite in Regards to 36" Water line at Sta. 57+85. There are six - Ten Ton Timber piles under each Headwall. Therefore

EXCAVATION WILL NOT AFFECT THE STRUCTURES.

Idle - LINK BELT 4000 - BACKHOE WITH 1¼ C.Y. BUCKET

3 TRUCKS

40 H BACKHOE

Cleaned DEBRIS from Control STRUCTURE THIS DATE.

8-18-72

Cldy - Cool 70°

CONTRACTOR Continued Channel EXCAVATION from STA. 51± TO STA. 50± LT SIDE and from STA. 56± TO STA. 55± LT.

CHECKED depth of Channel TO BE Running from 5 TO 7" low.

MET WITH Niagara Mohawk THIS DATE IN REGARDS TO RELOCATION of power poles AT STA. 42+40 LT

Also discovered possible ERROR IN SURVEY STAKEOUT STA. 42± TO STA. 43±. CONTACTED A. IANUZI TO CHECK offset STAKES.

8-21-72 Sunny - 80°
5 AM - 8:30 PM

Contractor Continued Channel Excavation 50± to Sta. 48± Lt and from Sta. 55± to Sta. 53± Lt. Placing spoil on Niagara Mohawk property.

Informed Contractor that Sta. 56± to 55+50 Lt the toe will have to be brought in to conform with plans

Checked depth of channel to be approx 6 to 9" low

Checked survey stakeout and found an error. Informed A. Jones and survey party re-staked line from Sta. 41± to Sta. 44± Rt

Town of Salina inspector Tim Hayes rejected spoil. Contractor will have to find another area to dispose of spoil.

Cleaned control structure this date.

Project working 16 hrs. day.

8-22-72 Sunny-78° 5AM-8:30PM

Contractor Continued Channel Excavation from Sta. 48± to Sta. 46+50 Lt. and from Sta. 53± to Sta. 51± Lt. Continued placing spoil on Niagara Mohawk property.

Checked depth of channel to be from 6" - 9" below proposed invert.

Cleaned control structure this date.

Instructed Contractor to remove debris from existing channel at Sta 47± to 46±

8-23-72 Variable 5AM - 8:30PM

Contractor Continued Channel Excavation from Sta. 46± to Sta. 45+50 Lt and from Sta. 51± to Sta. 49± Lt. Continued placing spoil on Niagara Mohawk property.

Production slow this date. Contractor buried trees and 30 B Dragline and spent 8 hrs removing

Checked depth of channel to be from 7" - 11" below proposed invert.

Cleaned control structure this date.

Niagara Mohawk engineers on jobsite this date in regards to relocation of poles at Sta. 42+40 Lt. Provisions to be made for Hart Rd.

ISABELL TREE CO. ON JOB CUTTING TREES THIS DATE AT STA. 46± LT. (3 HRS)

/ LAGGREN

CONTRACTOR GRADING SPOIL TO PROPOSED ELEVATION ON NIAGARA MOHAWK PROPERTY STA. 55± TO STA. 47± / LT

VARIABLE
8 AM - 8:30

8-24-72

CONTRACTOR CONTINUED CHANNEL EXCAVATION FROM STA. 49± TO STA. 48± LT. 30 B - 8 HRS.
PLACING SPOIL ON NIAGARA MOHAWK PROPERTY

CONTRACTOR ~~LEVELING~~ GRADING SPOIL TO PROPOSED ELEVATION ON NIAGARA MOHAWK PROPERTY STA. 55± TO 47± LT

CLEANING DEBRIS FROM CHANNEL AT STA. 47± TO 46±.

ALSO REMOVED DEBRIS FROM CONTROL STRUCTURE.

CHECKED DEPTH OF CHANNEL TO BE FROM 6" - 10" BELOW PROPOSED INVERT.

Cldy. 85°

8-25-72

CONTRACTOR CONTINUED CHANNEL EXCAVATION FROM STA. 48± TO STA. 47± LT PLACING SPOIL ON NIAGARA MOHAWK PROPERTY.

CONTRACTOR GRADING SPOIL TO PROPER ELEVATION ON NIAGARA MOHAWK PROPERTY FROM STA. 55± TO STA. 47± LT

INFORMED CONTRACTOR THAT THE DRAINAGE EASEMENT FROM TERMINAL PARK MUST BE LEFT OPEN AT STA. 47± LT. CONTRACTOR OPENED THIS AREA UP.

PERMISSION GIVEN BY HANK MINOR OWNER OF MIDSTATE TO BUILD ROAD FROM THEIR PROPERTY TO NIAGARA MOHAWK PROPERTY IN ORDER TO GRADE SPOIL. CRANES CANNOT GET THROUGH THIS SWAMP AREA. STA. 54± TO STA. 47± LT

MET WITH BUCKEYE PIPELINE TO SHOW THEM HOW WE WANT THEIR 10" PIPE STAKED OUT AT STA. 16±

CONTRACTOR EXCAVATED TOW OF SLOPE AT STA. 56± TO 55+50 LT PER INSTRUCTIONS TO CONFORM WITH PLANS

VARIABLE.
80°

8-28-72 ✓

Contractor Began installing Haul Rd from Sta. 52± to Sta. 42+40 Lt. in order to enable Contractor to grade spoil on Niagara Mohawk property.

Installed 40 LF of 48" pipe at Sta. 47± Lt. This is a temporary pipe to drain easement from Terminal park

8 Bottom Dumps
2 Ten wheelers
1 922 loader
1 944 "
8 operators
1 laborer

Continued grading spoil on Niagara Mohawk property at Sta. 46± Lt.

~~Contractor~~
No Resolution on Clause Hinds Agreement

Niagara Mohawk Began Constructing Haul Rd at Sta. 38± Lt to Sta. 42+40 Lt in order to Relocate lines.

Sunny 78°

8-29-72

CONTRACTOR CONTINUED
CONSTRUCTING ACCESS ROAD
FROM STA. 52± TO STA. 42+40
LT

CONTINUED GRADING SPOIL
ON NIAGARA MOHAWK
PROPERTY FROM STA. 46±
TO STA. 47± LT

CHECKED LOCATION OF NIAGARA MOHAWK
PROPERTY LINE AND
THE STAKEOUT OF 20"
GAS LINE TO DETERMINE
CONFORMANCE WITH PLANS.

AGAIN INFORMED CONTRACTOR
THAT THE SPOIL ON
NIAGARA MOHAWK PROPERTY
MUST BE AT ELEVATION
367.0.

CONTACTED N.Y.T. CO IN
REGARDS TO RELOCATION
OF POLES AT STA. 16+08

NIAGARA MOHAWK CREW CONTINUED
CONSTRUCTING HAUL RD
AT STA. 138± TO STA.
42+40 LT.

Sunny 80°

8-30-72

① Contractor continued constructing access road from STA. 52± to STA 42+40 LT

② Continued grading spoil on Niagara Mohawk property from STA. 50± to STA 52± LT.

Checked survey stakeout from STA. 41± to STA 43± RT and found power poles according to stakeout are in bank rather than in channel. Permission given by Dan Francis to shift line a little in order to bypass haul rd.

③ Niagara Mohawk crew continued constructing access rd from STA 38± to STA 42+40 LT

Informed contractor that excess spoil on Niagara Mohawk property will have to be hauled away.

SUNNY 78°

8-31-72

① CONTRACTOR CONTINUED CONSTRUCTING ACCESS ROAD FROM STA. 46± TO STA. 42+40 LT.

② CONTRACTOR RE-EXCAVATED CHANNEL FROM STA. 49± TO STA. 48± LT WHERE THE BANK SLID IN.

③ CONTINUED GRADING SPOIL ON NIAGARA MOHAWK PROPERTY FROM STA. 52± TO STA 47± LT.

INFORMED CONTRACTOR THAT EXCESS SPOIL WILL HAVE TO BE HAULED OFF OF JOBSITE.

④ CONTRACTOR BEGAN CONSTRUCTING HAUL ROAD AT STA. 16+08 RT TO PROVIDE ACCESS FOR NEW YORK TELEPHONE CO.

NIAGARA MOHAWK CREWS CONTINUED CONSTRUCTING HAUL RD AT STA. 38± TO STA. 42+40 LT.

CLEANED CONTROL STRUCTURE THIS DATE.

Sunny - 80°

9-1-72 ✓

Contractor Continued
Constructing Access Road
from Sta. 46± to Sta. 42+40 Rt

Continued Spreading Spoil on
Niagara Mohawk Property
from Sta. 52± to Sta.
48± Lt.

Contractor Continued Channel
Excavation from Sta 47±
to Sta. 46+50 Lt. Placed
Spoil on Niagara Mohawk
Property.

New York Telephone Co.
to Install New Pole 50'
North of Railroad Embankment
and Relocate Lines Presently
located Within the
Channel. Per Conversation
with L. Stoddard.

Niagara Mohawk Crews Continued
Constructing Haul Road from
Sta. 38± to Sta. 42+40 Lt

Depth of Channel Approx 8" Below Proposed Invert

General Equations and Useful Data

	Symbol on Equation	Numerical Value
Area of circle	$\frac{\pi d^2}{4}$	
Area of Sector of Circle (Length of arc = l)	1/2 lr	
Area of Segment of Parabola (app.) (c = chord; m = mid. ord.)	2/3 cm	
Area of Segment of Circle	2/3 cm	
Cubic Feet in 1 Cubic Meter		35.3145
Cubic Inches in 1 Imperial Gallon		277.274
Cubic Inches in 1 U.S. Gallon		231
Feet in 1 Meter		3.2808
Feet in 1 Mile		5280
Gallons (Imperial) in 1 Cubic Foot		6.2321
Gallons (U.S.) in 1 Cubic Foot		7.48
Miles in 1 Kilometer		0.6213
Pounds (Av.) in 1 Kilogram		2.2046
Ratio of Circumference to Diameter	π	3.14159
Reciprocal of π		0.31831
Square Feet in 1 Acre		43,560
Volume of Sphere	$4/3\ \pi r^3$	

Table I.—Minutes in Decimals of a Degree.

1′	.0167	11′	.1833	21′	.3500	31′	.5167	41′	.6833	51′	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

Table II.—Inches in Decimals of a Foot.

1/16	3/32	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8
.0052	.0078	.0104	.0156	.0208	.0260	.0313	.0417	.0521	.0625	.0729
1	2	3	4	5	6	7	8	9	10	11
.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167

Clearing	76.%	73,666.80
ACCESS RD.	90%	51,235.20
Removing Existing Sheeting	30%	968.10
7th North ST Culvert	100%	2105.00
Field OFFice	100%	810.00

Clearing	76%	73,666.80
ACCESS RD	90%	51,235.20
Sheeting	30%	968.10
7th North ST		2105.00
Field office		810.00

Book #2

BEAR TRAP - Ley CREEK

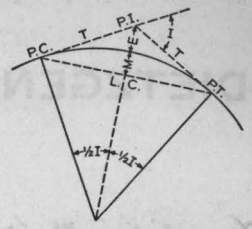
Segment #2

403NW

DIETZGEN

CURVE AND REDUCTION TABLES

Published by Eugene Dietzgen Co.



CURVE FORMULAS

1. Radius : $R = \frac{50}{\sin D/2}$
2. Degree of Curve: $D = 100\frac{I}{L}$. Also, $\sin D/2 = \frac{50}{R}$
3. Tangent : $T = R \tan \frac{1}{2} I$. Also, $T = \frac{T \text{ for } 1° \text{ curve}}{D} + C$.
4. Length of Curve: $L = 100\frac{I}{D}$
5. Long Chord : $L.C. = 2R \sin \frac{1}{2} I$.
6. Middle Ordinate: $M = R\,(1 - \cos \frac{1}{2} I)$
7. External : $E = \frac{R}{\cos \frac{1}{2} I} - R$. Also, $E = T \tan \frac{1}{4} I$.

EXPLANATION AND USE OF TABLES

Given P.I. Sta. 83+40.7, I = 45° 20′ and D = 6°30′ find:

Stations—P. C. = P. I. − T. $T = \frac{T \text{ for } 1° \text{ Curve}}{D} +$ C. From Tables V and VI $T = \frac{2392.8}{6.5} + .197 = 368.32 = 3 + 68.32$. Sta. P. C. = 83+40.7 − (3+68.32) = 79+72.38. P. T. = P. C. + L, and $L = 100\frac{I}{D} = 100\frac{45.33}{6.5} = 697.38$ Therefore, P. T. = (79+72.38) + (6+97.38) = 86+69.76.

Offsets—Tangent offsets vary (approximately) directly with D and with the square of the distance. From Table III Tangent Offset for 100 feet = 5.669 feet. Distance = 80 − Sta. P. C. = 27.62. Hence offset $= 5.66 \times \left(\frac{27.62}{100}\right)^2 = .432$ ft. Also, square of any distance, divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(27.62)^2 \div (2 \times 881.95) = .432$ ft.

Deflections—Deflection angle = ½ D for 100 ft., ¼ D for 50 ft., etc. For "X" ft., Deflection Angle (in minutes) = .3 × X × D. For Sta. 80 of above curve Deflection Angle = .3 × 27.62 × 6.5 = 53.86′. Also Deflection Angle = dfl. for 1 ft. from Table III × X = 1.95 × 27.62 = 53.86′. For Sta. 181 Deflection Angle $= 53.86' + \frac{6°\ 30'}{2} = 4°\ 8.86'$.

Externals—From Table V for 1° curve, with central angle of 45° 20′, E = 479.6. Therefore, for 6° 30′ curve, $E = \frac{479.6}{6.5} +$ Correction from Table VI = 7.378 + .039 = 7.417.

9-5-72 ✓ Sunny. 78°

Contractor continued constructing access road from Sta. 46± to Sta. 42+40 Lt

Continued excavating channel from Sta. 46+50 to Sta. 46+00 Lt. placed spoil on Niagara Mohawk property

Continued grading spoil on Niagara Mohawk property from Sta. 52± to Sta. 47± Lt

Contractor locating gas lines at Sta. 16± and Sta. 17± by hand to determine depth.

Checked elevation of 20" gas main at Sta. 17± to be 2.26′ below proposed invert of channel.

ISABEL TREE Co. CONTINUED
CLEARING R.O.W. from
STA 12+08 RT TO STA.
19+50 RT

NIAGARA MOHAWK on JOBSITE
WHILE CONTRACTOR WAS digging
AROUND GAS MAIN.

Hub STA.
18+00 3.36 369.51 — ELEV BM
366.15

Top GAS MAIN 11.36 358.15

CHANNEL INVERT 360.41
358.15
2.26 COVER

DENARCO RADIO & TV
REQUESTED WE CUT TREES
ON NORTH BANK AT STA 12+08
THIS IS NOT IN CONTRACT and
SUGGESTED HE CALL THE COUNTY.

9-6-72 Sunny 76°

CONTRACTOR CONTINUED
CONSTRUCTING ACCESS RD. from
STA. 46± TO STA. 42+40 LT

CONTINUED EXCAVATING CHANNEL
from STA. 46+00 TO STA.
45+00 LT. PLACING SPOIL ON
NIAGARA MOHAWK PROPERTY

CONTINUED GRADING SPOIL ON
NIAGARA MOHAWK PROPERTY
from STA. 47± TO STA. 45± LT

CONTRACTOR CONTINUED locating
GAS LINES AT STA. 16± and
STA. 17± BY Hand TO
DETERMINE DEPTH

HAULED SPOIL from STA.
3+00 RT TO TERMINAL
PARK dump AREA. PERMISSION
GIVEN BY R. BUCK

ISABEL TREE Co. CONTINUED
CLEARING from STA. 12+08

RT TO STA. 19+50 RT

CHECK ELEVATION of CHANNEL TO BE APPROX 6" BELOW PROPOSED INVERT

CLEANED CONTROL STRUCTURE THIS DATE.

CHECKED ELEVATION of 20" GAS LINE TO BE 358.39 APPROX 40' FROM PREVIOUS SHOT.

ELEVATION - TOP of BAND ON 48" CMP - 366.95

Sunny 75°

9-7-72

CONTRACTOR CONTINUED EXCAVATING CHANNEL FROM STA. 45± TO STA. 44± LT, PLACING SPOIL ON NIAGARA MOHAWK PROPERTY.

CONTINUED GRADING SPOIL ON NIAGARA MOHAWK PROPERTY FROM STA. 42± TO STA. 45± LT

CONTRACTOR CONTINUED LOCATING GAS LINES AT STA. 16± (BUCKEYE 10" LINE) BY HAND TO DETERMINE DEPTH.

HAULING SPOIL FROM STA. 3+00 RT TO TERMINAL PARK DUMP AREA.

CLEANED CONTROL STRUCTURE THIS DATE.

CHECKED ELEVATION of CHANNEL TO BE APPROX 8" BELOW PROPOSED INVERT.

CHECKED ELEVATION of 10" GAS LINE TO BE 358.45

CHECKED NIAGARA MOHAWK LINE 20" LINE TO BE AT AN ELEVATION of 358.99

CONTRACTOR GIVEN PERMISSION BY CROUSE HINDS FOR RIGHT of ENTRY. AGREEMENT BETWEEN THE COUNTY AND CROUSE HINDS HAS BEEN SIGNED. ACCORDING TO CONTRACTOR

9-8-72

CLDY-RAIN 73°

CONTRACTOR CONTINUED CHANNEL EXCAVATION FROM STA. 44± TO STA. 43± LT. PLACING SPOIL ON NIAGARA MOHAWK PROPERTY

CONTINUED GRADING SPOIL ON NIAGARA MOHAWK PROPERTY FROM STA. 45± TO STA. 43± LT

CONTINUED LOCATING GAS LINE BY HAND AT STA. 16± (BUCKEYE 10" LINE) TO DETERMINE DEPTH.

CLEANED CONTROL STRUCTURE THIS DATE.

CHECKED ELEVATION of CHANNEL TO BE APPROX 5" BELOW PROPOSED INVERT.

OUR OFFICE HAS RECEIVED NO WORD of THE SETTLEMENT of CROUSE HINDS AGREEMENT.

9-9-72 ✓ VARIABLE 75

Continued grading spoil on Niagara Mohawk property from STA. 47± to STA 43± LT.

Continued channel excavation from STA 43± to STA. 42+50 LT placing spoil on Niagara Mohawk property

Cleaned debris from control structure this date.

Checked elevation of channel to be approx 6" below sub-grade.

9-11-72 ✓ Sunny 75°

Contractor continued channel excavation from STA. 46± to STA. 45± LT. placing spoil on Niagara Mohawk property.

Continued grading spoil on Niagara Mohawk property from STA. 47± to 43± LT

Cleaned control structure this date

Checked elevation of channel to be approx. 8" below proposed invert.

Contractor obtained keys from Crouse Hinds Co. to their property.

Again informed contractor that excess spoil on Niagara Mohawk property to be hauled off of sitesite

9-12-72 ✓ Sunny 76°

Contractor Continued Channel Excavation from Sta. 45± to Sta. 44± Lt. Placing spoil on Niagara Mohawk property

Continued grading spoil on Niagara Mohawk property from Sta. 45± to Sta. 43± Lt

Cleaned Control structure this date

Checked elevation of Channel to be approx 9" below proposed invert.

Contractor grading slopes on Rt side of channel from Sta. 56± to Sta. 50±

9-13-72 ✓ Variable 75°

Contractor Continued Excavating Channel from Sta. 44± to Sta. 43± Lt placing spoil on Niagara Mohawk property

Continued grading spoil on Niagara Mohawk property from Sta. 44± to 42± Lt

Continued grading slopes on Rt side of Channel from Sta. 56± to 50± Rt

Niagara Mohawk Power Corp Removed two power poles in Channel and replaced with one pole at Sta. 42+50 Lt.

Cleaned Control structure this date

Adjusted stakeout to conform with plans. Permission from Dan Francis

9-14-72 ✓ VARIABLE 72°

CONTRACTOR CONTINUED EXCAVATING CHANNEL FROM STA. 43± TO STA. 42± LT AND FROM STA. 42+50 TO STA. 41+50 LT. PLACING SPOIL ON NIAGARA MOHAWK PROPERTY.

INSTRUCTED CONTRACTOR TO CLEAN CONTROL STRUCTURE THIS DATE

CHECKED ELEVATION of CHANNEL TO BE APPROX 5-9" BELOW PROPOSED INVERT.

SUNNY - COOL 70°

9-15-72 ✓

CONTRACTOR CONTINUED CHANNEL EXCAVATION FROM STA. 42± TO STA. 41± LT AND FROM STA. 41+50 TO STA. 40+50 LT PLACING SPOIL ON NIAGARA MOHAWK PROPERTY.

CONTINUED GRADING SPOIL ON NIAGARA MOHAWK PROPERTY.

CHECK ELEVATION of CHANNEL TO BE APPROX. 10" BELOW PROPOSED INVERT.

CONTINUED GRADING SLOPES AT VARIOUS LOCATIONS RT SIDE of CHANNEL

9-18-72 Sunny-Warm 78°

CONTRACTOR CONTINUED CHANNEL EXCAVATION from STA. 41± LT TO STA. 40± LT and from STA. 40+50 TO STA. 39+50 LT. placing spoil on NIAGARA MOHAWK PROPERTY

CONTINUED grading spoil on NIAGARA MOHAWK PROPERTY

CHECKED ELEVATION of CHANNEL TO BE APPROX 6" BELOW PROPOSED INVERT

CONTRACTOR LOCATED UTILITIES AT STA. 13+75 CROSSING CHANNEL and BEGAN CUTTING SHEETING TO PROPOSED INVERT (APPROX. 1.0')

9/19/72 OVERCAST 65°

Contractor still excavation channel left side 39+50± LF to 39+00 LF casting spoils on Niagra mohawk side

Started service Road today placing Gravel over some brush Checked with DMF okay Hauled in 660 cyd± 55 loads @ 12 cy STA 40+00 TO 33+75. 625 LF Completed.

Checked invert of channel 6"± below invert.

9-20-72

Fair
95°

Excavating channel 39+00 to 40+00 with drag line
Move backhoe to sta -
Started cleaning existing creek

working on service Road -
Sta 33+75 to 28+00
JJH + DMF on Job p.m -

Cutting off steel sheeting sta 13+75 - to 6" ± below invert. app 1.0 of sheeting
Located 6" force main according to Leon cook - wrap 6" steel pipe was used -

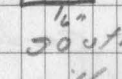
3:30 p.m REP contacted me & we went to Ley Creek Checked Slopes on LF side of creek - Not on 3/1 slope. JJH made aware of this. Leon claims Banks are done - Ron Rebadow will be on Job in a.m to talk to Leon.

Rain

9/21/72

Ron Rebidow on Job 8:00 talked to Leon agreed slope in area was not completed - 39+00 to 38+00

Still haul gravel for Service Road 28+00 to 22+00

Still working on sheeting @ sta 13+75 - Cutting off
Tony + Leon wants to cradle 6" Force Main - which is app 1 below invert
Talk to DMF who will check with county
Memo @ 3:30 Reverse Force main
Ken Hankinson from County on Job 4:30 - Looking situation over -
want cradle poured 1.5  1.5
Sheeting cut off on south side of Creek contractor will move to North Bank after cradle is poured

9/22

Excavating channel sta
38+00 to 37+00 not complete

Building service Road To End
This am.

1 Supt 4
1 oper. 4
2 Labor 16

Bucyrus Erie 2213
2 3" pump.

working @ Park street cleaning out +
getting 6" force main ready to pour
conc Encasement. will probaly Have
change order for this work.
County on Job okay

10:30 loaded truck tipped on side
sta 21+00 Service Road gave way
+ slide into creek.
Most of crew spent rest of Day
removing truck

00 concrete
70°

9/23

1 supt
3 oper
2 Labor

Excavating channel 37+00 to
36+00

Digging out steel sheeting @ sta
13+25 W. side very little accomplished
due to High water.

9/26

1 Supt		BE 30B
3 oper		BE 40H
2 Labor.		Link Belt 409
		2-3" Pumps

Channel Excavation 36+00 to 35+00
also Existing 34+00 to

Cotton steel sheet Sta 13+75 D.S.side
Checked with DMF no permit from R.R. yet

Crew per conc. Reinforcement 6" Foreman

1 Supt	3.5	BE-22B
1 oper	3.5	2-3" Pumps.
2 Labor	7.0	

used Polydiene 37'x5'x1' deep.

9/27

1 Supt	BE 40H
4 oper	BE 30B
2 Labor	BE 22B
	409

Channel Excavation Sta 35+00 to 34+50
also Deepening Existing Channel Sta 34+00 to 30+00

Clean out & Shaping Slopes for RRRR Southside @ 3 months ot.

9/28

	420 Dozer.
Supt	BE 40H
Oper	BE 30B
Labor	BE 22B
	Link Belt 409

Completed Channel Excavation 34+50 to 3450

Rip Rap @ 7th north to small - Checked with Sth - want larger. RER Checked @ 11:30 reject
Checking general reach with L. Cook.
2:00 Show pictures of Rip Rap available to DMF okay by him use large stone on bottom.

Excavation for Rip Rap South Bank @ 7th north st - today.

Start excavation for sheeting cut off @ R.R. west of Park St. 0+71

9/29

(56)

Supt	BE 22B
Oper	Link Belt 409
Labor	BE 30B

working on Excavation to out sheeting off @ 0+71 Railroad Bridge west of Park St

moving BE 30B from Sta 34+00 to 50+00 to Slope Banks.

working for Rip Rap @ 7th north.

Tony M. claims as soon as I can get the sheeting cut off They are going to start driving sheet with or with out permit

50° to 50

10/2/72

1	Supt	8	BE 30B
4	open	32	BE 22B
2	Labor	16	L.B 409

Placing Rip Rap @ 7th North St south Bank DMF 10/2/72 Looked @ it not too Bad -

Digging out south side sta 0+71 to cut off sheeting around 18" Force main Con C Headwall on this side too - will saving Bank of proposed channel into Headwalls.

Sloping Bank on north side of channel today

Link Belt excavating N. side of existing channel 30+00 to 25+00

10/3

1 Supt
4 open
2 Labor -

completing Rip Rap south side @ 7th North St

Completed N. side channel to 23+00 this am -

Complete cutting of sheeting @ sta 0+71 today - 44.0 Between Head walls -

30B sloping Banks @ sta 52+00 ±

3.30 Leon showed me what looked like possible break over 42" Force main. called Brd Russell For County

Fair 10/4

Supt
open
Labor

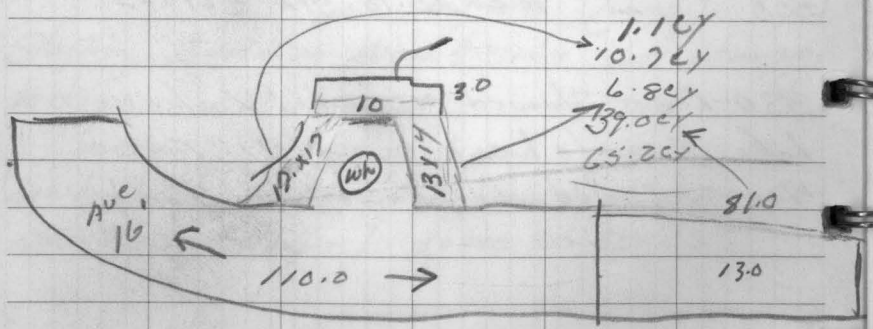
13
30
390
27 | 350
27
120
105

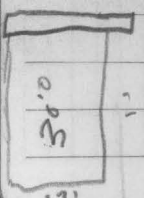
Sloping Banks North side Sta 39+00 Back to 50+00

22B Loading out Brush & trees @ 13+75

Link Belt working N. side @ 7th North St. getting Slopes ready for R.P.Rap.

South Bank now completed @ 7th North St





$\frac{13' \times 30 \times 1'}{27} = 14.4$ cyds 122.8 cy

2 Extra hand R.O.B. around Headwall

Fair 10/5/72

Supt
open
Labor

BE 40H
BE 30B
BZ 22B
Link Belt 40g
Case 450 Dozer
CAT 922 Loader

working rip Rap North Bank @ 7th North St.

BE 40H & BE 30B - Sloping Bank North side 4000 to 52+00 - discussed oper with Leon Cook - He claims R.R. passes Slopes - I told him they didn't pass - R.E.P on Job - This man goes about Channel 23+00 to 19+81 -

22B Cleaning Brush & trees out of R.O.W.

Told Leon Bank would have to be sloped from when Jack & 40H started west 3 to 4 hundred Feet

10/6

working + Completed Rip
Rap @ 7th north

Finished grading + spreading
spoils north bank -
told Leon looked like He was
too High - Above 367.00
He don't seem to worry to
much about it
still had to go about 3 to 4 hundred
feet From where you started
to slope Banks

10/7

1 Labor 4 Grader
1 open 4

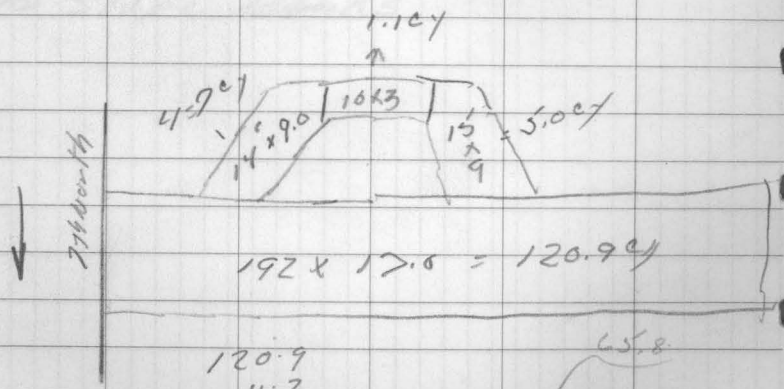
worked 4hr shoping up service
RD. DMF + my self toured
Job - Looks straight to Donny

10/9

1 Supt	8	BE 40H
4 Opm	32	30B
2 Labor	16	22B
		Lokbelt 909

Link belt working channel Excavation
23+00 Back to 23+400 — South side
4' cut to invert. Memo 12' slope
23+00 to 26+00

40H & 30B - Clean up & Grading spoils
@ 7th north st. North side



120.9
4.7
1.1
5.0
131.7 yds
137.2
268.9 cyds
134.5 F. Hor Bed.

65.8
2 / 131.7
12
11
10
17

10/10

1 Supt	8
4 Opm	32
2 Labor	16

30B & Link Belt working South Bank
23+00 to 50+00 -
Moved 40H to Rail Road track
Started to Excavate south side of channel to divert water in order to complete excavation
Tony on - on Job - wants North Bank 13+75 to 18+00 done first

10/11

1 supt 8
4 open 32
2 Labor 16

22B working cleaning out control structure

B&40h Excavating channel @ Demarkos north slope.

Check with DMF save R.PRAP Park st

30B Excavating Bottom of channel

10/12

1 Supt 8
4 open 32
2 Labor 10

Channel Excavation sta
43+00 to 44+00
30+00 to 34+00
14+00 to 15+00

Slope @ N.M tower will not be 30'1 slope
JJL + REP on job wants ties taken out of Rails @ King today
Dem in Kennebec Completed @ 4:00 p.m.
Joe wants REP & myself to check with DMF on RIP RAP South Bank @ Park St. He doesn't think it can be saved.

10/13

1 supt
4 oper
2 Labor

working on channel excavation
Today-
Sta 45+00 to 39+00-
Informed Leon that slopes @
Park street did not look
like 3 on 1

Excavating channel 14+00 to
15+00 S. Bank-

10/16

1 supt
4 oper
2 Labor

working on channel Excavation
south side 45+00 to 40+00-
also 15+00 to 16+00
Buckeye Pipe Rep on Job 100

10/17

1 supt
1 oper
2 labor
2 teamster

worked on channel excavation
40+00 to 45+00 south bank.
moved 30B off side to move spoils
+ Grader-

10/18

supt
oper
labor
teamste

working south bank 43+00 shaping
slopes. 30B moving spoils-
40H channel excavation 10+00
South side
REP on job this am-

10/19

Supt
opn
Labor
Teamsty

JJL + EJC on Job checking
R.P Rept slopes no problems.

R.E.P covered Job.

10/20

supt
opn
Labor-

Bldg Haul Road north side
Sta 16+00 to 17+00

40H Channel Excavat 17+00 to
R. R. south side

Linkbelt - Sloping Banks Sta
44+00 -

Moved 30B to park at this
p.m -

10/23

1 supt	40H
4 open	30B
2 Labor	Link Belt 409
3 Teamster	Loader
	Case 450

Channel Excavation 130 to side
Channel 18+00 to 19+00 nothing
Completed

Cleaned out Box Culvert as requested
By JJL 10/19/72.

Hauling spoils out By truck.

Labor working on Cleaning control
structure not completed as of
4:00 pm will finish in am.

10/24

Supt	BE 40H.
Open	BE 30B
Labor	Link Belt 409
Teamster	Case 450
	CW 22 Loader
	3 tenwheel Dump

Pay 119.28 + 100.00 on Riprap.
30B completed Channel Excavation
Today Park St to Railroad
40H finish north side Excavation
Link Belt sloping Banks

10/25

1 Supt	BC 40h
4 Opers	30B
2 Labor	22B
4 Teamster	Linkbelt 409
	Cat 922
	Case 450

Excavation with 30B sta 800 will have to narrow proposed channel to avoid state embankment per DNR 10:00 am

Dressed slope for R.P. Rap 19+50 to 18+00 South Bank.

Linkbelt working North Bank. 40+00 to 34+00 Sloping banks.

$$143 \times 20 = 2860$$

$$2860 \times 104 = 2860 + 2860 + 270 = 106 + 104$$

$$192 \times 14 = 768 + 192 = 2688$$

$$2688 \div 27 = 99$$

$$2688 - 243 = 258 - 243 = 150$$

10/26

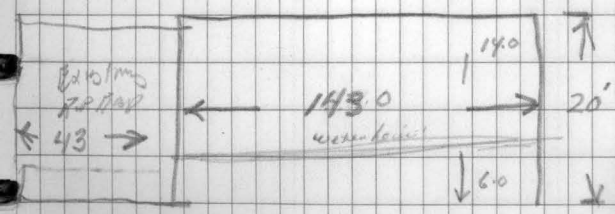
1 Supt
4 Opers
2 Labors
3 Teamsters

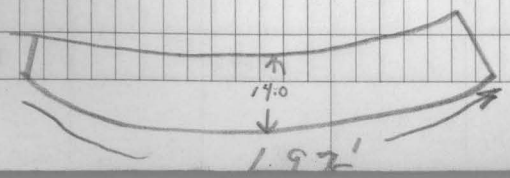
30B channel Excavation north side of channel 2+00 to 6+00 reaching out as far as possible to do slopes

Linkbelt placing Rip Rap @ 19+50 & 12+50 South Banks

40H- sloping banks. north side 40+00 to 34+00 -

Channel control structure to dry





10/27

1 Supt
4 Opers
2 Labor
3 Teamsters

4 to 1 Sloping Banks south side 8+00 to 7+00 -

30 B + Link Belt working Sta 18+50 to Rail Road. Sloping & Setting Bank ready for R.P Rap -

10/30

Supt
Opers
Labor
Teamsters

Channel Excavation Sta 7+50 to 5+00 S. Side today

Placing R.P Rap N. Side Sta 19+00 to 18+00

Clean Control

10/31

1 Supt
4 Oper
2 Labor
4 Tender

working 30B + 40h. Sta 5100 to 3+00 Bothside Channel today
no problems

11/1

1 Supt
4 Oper
2 Labor
4 Teamsel

Same

Channel Excavation 300 to 200 w/ 4 30B - skyped excavation @ Sta 2+50 Control structure
110h Sloping Banks 4+00 to 3+00 -
JJL on Job p.m. - no problems

11/2

1 Supt
4 open
2 Labor
4 Teamster

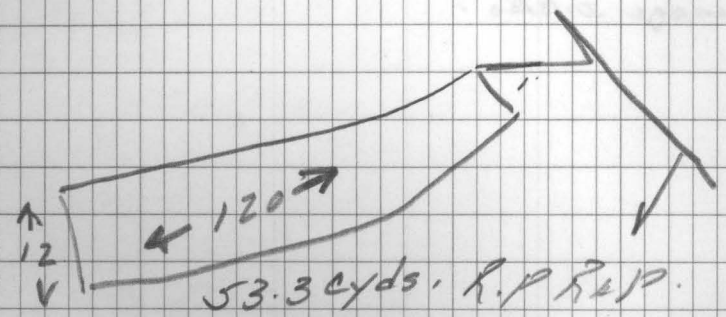
Completed Channel Excavation today - Pulled control structure 2:00 p.m. —
Channel doesn't look bad.

11/3.

1 Supt 8
4 open 3C
2 Labor 1C

working on clean up & dressing off Bank sta 8+00 to 1+00 — Case 450 Dozer -

Moved 30B off job today.



11/6

1 Supt	8	404
3 open	24	Case 450
2 Labor.	16	

spent day seeding & mulching Banks

Told Leon to grade spoils N. Bank app. STA 50+00-

404. working on northside cutting Drainage ditches.

11/7

1 Supt	8	
3 open.	24	
2 Labor	16.	450 Case.

Finished seeding + mulching Banks. pressed service Pond. R.E.P Covered Job

Rain 11/8.

Moving Equipment off.
Job Site

11/9.

1 Supt Case 450
1 Labor

Moving Equipment off site
a.m.
12:30 REP Received call
from Tony M - Pen central wants
Road Gravel from #81 to first
Ramp app 400 LF.
Tony was told if Road took gravel
to make it like it was before
it should be done - no payment
authorized - T.M. said they were
going to do it & we could take it
from there.
Check Road 3:45 pm. R.E.P &
R.R. - Road about same as before
Except - low spots lifted lower -
Per R.R. using app 6 load gravel

11/10

Supt Case 450
Labor- cat 966

Grading Roadway Park St to
First Ramp to Rail Road- app-
sta. 500

11/14

17+75 - area south of Service Road
Holding water.

Service Road @ 22+00 under
water

11/15

South side

46+00 to 41+00 spoil area ponding water

Access Road.

Sta 43+50 to 43+00 Holding water

Sta 43+00 to 41+00 Holding some water + area soft.

Sta 41+00 to 40+00 Holding water.

Service Road

Sta 40+00 to Sta 35+00 fairly firm little water laying on Road surface

35+00 to 30+00 good very little water +

30+00 to 24+00 reasonable

24+00 23+50 Side toward creek soft mud app 8" deep.

23+00 to 22+00 Gravel firm but will be under water during High water

Access Road. Rock st.

18+00 to 48" cmp soft + Low - need Dressing up.

04331

BRANCH PLANTS
CORTLAND, N.Y.
MARCELLUS, N.Y.

Phone 469-3217
SAND

W. F. SAUNDERS & SONS, INC.

–S. ONONDAGA ROAD–
READY MIXED CONCRETE

P. O. Drawer "A"
Nedrow, N. Y. - 13120

STONE

Syracuse, N. Y., 9/22 19 72

To Empire Pipe
Park St thru underpass turn
right by RR Tks.

IMPORTANT TERMS AND CONDITIONS

Extra charge is made for deliveries of less than 4 cubic yard loads.
The cement used in this concrete is guaranteed to conform to the present specifications of the American Society for Testing Materials and the United States Government. Since we have no control over the use of this concrete we therefore cannot guarantee or assume responsibility for the finish work for which it is used.

QUANTITY		
	cu. yds.	1-2-3 CONCRETE
	cu. yds.	1-2-4 CONCRETE
	cu. yds.	1-2½-5 CONCRETE
	cu. yds.	1-3-5 CONCRETE
	cu. yds.	1-3-6 CONCRETE
5	cu. yds.	Class C

ADMIXTURE Darex

NOTICE

The Customer Hereby Accepts All Responsibility For Damage Which Might Result By Truck Leaving Public Highway.

Signed

MILEAGE

RETURN

START 935

LEFT PLANT	ARRIVED JOB	WAITING TIME	LEFT JOB	ARRIVED PLA
935	1000		1045	

NOTE! Customer Will Be Allowed Five Minutes Per Cubic Yard Free Unload Time. Delay Caused By Customer Over This Time Will Be Charged For At The Rate Of $20.00 Per Hour.

Earl Coon

NOTICE:
THIS LOAD OF CONCRETE CONTAINS _____ GALLONS OF WATER. DRIVERS ARE NOT PERMITTED TO ADD MORE WATER WITHOUT AUTHORITY OF CUSTOMER INDICATED BY INITIALING HERE _____

Truck No. 150 Driver Clay

No Cancellations Accepted After Concrete Has Been Loaded In Trucks At Our Plant

INSPECTED, APPROVED AND REC'D BY _____

A **FINANCE CHARGE** IS COMPUTED BY A PERIODIC RATE OF **1½% PER MONTH** ON UNPAID BILLS AFTER 30 DAYS. THIS IS AN **ANNUAL PERCENTAGE RATE OF 18%**

04447

BRANCH PLANTS
CORTLAND, N.Y.
MARCELLUS, N.Y.

Phone 469-3217
SAND

W. F. SAUNDERS & SONS, INC.

–S. ONONDAGA ROAD–
READY MIXED CONCRETE

P. O. Drawer "A"
Nedrow, N. Y. - 13120

STONE

Syracuse, N. Y., 9/26 19 72

To Empire Pipe
Park St by Mavko T.V.

IMPORTANT TERMS AND CONDITIONS

Extra charge is made for deliveries of less than 4 cubic yard loads.
The cement used in this concrete is guaranteed to conform to the present specifications of the American Society for Testing Materials and the United States Government. Since we have no control over the use of this concrete we therefore cannot guarantee or assume responsibility for the finish work for which it is used.

QUANTITY		
	cu. yds.	1-2-3 CONCRETE
	cu. yds.	1-2-4 CONCRETE
	cu. yds.	1-2½-5 CONCRETE
	cu. yds.	1-3-5 CONCRETE
	cu. yds.	1-3-6 CONCRETE
7	cu. yds.	Class C 1+2

ADMIXTURE Darex

NOTICE

The Customer Hereby Accepts All Responsibility For Damage Which Might Result By Truck Leaving Public Highway.

Signed

MILEAGE

RETURN

START 40104

LEFT PLANT	ARRIVED JOB	WAITING TIME	LEFT JOB	ARRIVED PLANT
130	155		220	

NOTE! Customer Will Be Allowed Five Minutes Per Cubic Yard Free Unload Time. Delay Caused By Customer Over This Time Will Be Charged For At The Rate Of $20.00 Per Hour.

NOTICE:
THIS LOAD OF CONCRETE CONTAINS_____GALLONS OF WATER. DRIVERS ARE NOT PERMITTED TO ADD MORE WATER WITHOUT AUTHORITY OF CUSTOMER INDICATED BY INITIALING HERE_____

Truck No. 146 Driver Evans

No Cancellations Accepted After Concrete Has Been Loaded In Trucks At Our Plant

INSPECTED, APPROVED AND REC'D BY Leon L Cook

A **FINANCE CHARGE** IS COMPUTED BY A PERIODIC RATE OF **1½% PER MONTH** ON UNPAID BILLS AFTER 30 DAYS. THIS IS AN **ANNUAL PERCENTAGE RATE OF 18%**

402
22 B
B
E