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July 1972

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GR-05-035

(2 of 2)

GEOTECHNICAL AND MATERIAL SERVICES PACIFIC REGION WHITEHORSE, YUKON TERRITORY

SUBSURFACE TESTING REPORT

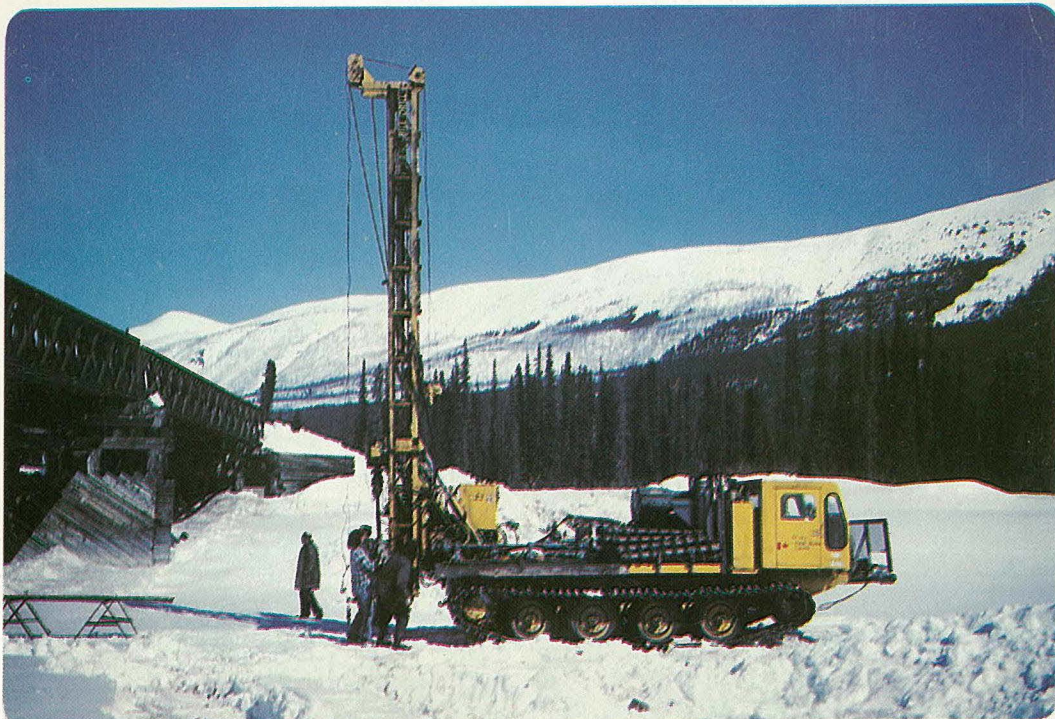
BIG CREEK

DEMPSTER HIGHWAY MILE 122.3

YUKON TERRITORY

GR-05-035

COPY
INFORMATION ONLY



SUBSURFACE TESTING REPORT

BIG CREEK

DEMPSTER HIGHWAY MILE 122.3

YUKON TERRITORY

GR-05-035

DRILL LOG SUMMARIES

1972 INVESTIGATION



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: BIG CREEK BRIDGE

DRILL TECHNICIAN: DEMPSTER

Hwy Mi 122.3

HOLE LOCATION: SEE PLAN

DRILLED: July 30/72

PLOTTED BY: B.F.

HOLE ELEVATION:

HOLE NO.: BC-2

| | | | | | | | | | | | | | | | | | | | |
|-------------|-------------------------------|---------|---|--|----------------------------|----------------|-----------------------------|--------------------------|-------------------------------------|----------------------|-----------------------|--------------------------|---------------------|-----------|---------------|---------------|-----------------------------------|--|---------------------------|
| DEPTH 4' | OF DRILL DIAMOND DRILL (N) | R LEVEL | SOIL DESCRIPTION SAND & GRAVEL to 3" Max φ. 4' END HOLE | N.R.C. PERMAFROST CLASSIFICATION | SAMPLE IDENTIFICATION DATA | | | | NATURAL MOISTURE CONTENT % | CONSISTENCY LIMITS | | | MECHANICAL ANALYSIS | | | | DRY DENSITY LBS. CU. FT. | STANDARD PENETRATION RESISTANCE BLOWS F.T. | UNIFIED CLASSIFICATION |
| | | | | | LABORATORY NUMBER | SAMPLE TYPE | SAMPLE NUMBER (FIELD) | SAMPLE DEPTH (FT.) | | LIQUID LIMIT % | PLASTIC LIMIT % | PLASTICITY INDEX % | GRAVEL % | SAND % | >.005 mm % | <.074 mm % | | | |

Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: BIG CREEK BRIDGE DEMPSTER HWY MI 122.3 HOLE LOCATION: See Plan. HOLE NO.: BC-3 (CONT.)
 DRILLED: July 30/72 DRILL TECHNICIAN: B.F. PLOTTED BY: B.F. HOLE ELEVATION:

| DEPTH (FT.) | SAMPLE IDENTIFICATION DATA | NATURAL MOISTURE CONTENT (%) | CONSISTENCY LIMITS | | | MECHANICAL ANALYSIS | | | DRY DENSITY (LBS. CU. FT.) | STANDARD PENETRATION RESISTANCE (BLOWS FT.) | UNIFIED CLASSIFICATION |
|-------------|----------------------------|------------------------------|--------------------|-------------------|----------------------|---------------------|----------|----------------|----------------------------|---|------------------------|
| | | | LIQUID LIMIT (%) | PLASTIC LIMIT (%) | PLASTICITY INDEX (%) | GRAVEL (%) | SAND (%) | < 0.075 mm (%) | | | |
| 25 | | | | | | | | | | | |
| 27 | 1 CORE | | | | | | | | | | |
| 29 | 2 CORE | | | | | | | | | | |
| 31 | | | | | | | | | | | |
| 33 | 3 CORE | | | | | | | | | | |
| 37 | 4 CORE | | | | | | | | | | |

N.R.C. PERMAFROST CLASSIFICATION

SOIL DESCRIPTION

broken rock. 26'
 BEDROCK (LIMESTONE)
 - broken & fractured to 33'
 - grey limestone
 - more solid below 33'
 37'
 END HOLE.

PROJECT: BIG CREEK BRIDGE DEMPSTER HWY. M.I. 122.3

HOLE LOCATION: SEE PLAN

DRILLED: JULY 31/72

DRILL TECHNICIAN:

PLOTTED BY:

R.S.

HOLE ELEVATION:

HOLE NO.: BC-4

| DEPTH OF DRILL OR LEVEL | N.R.C. PERMAFROST CLASSIFICATION | SAMPLE IDENTIFICATION DATA | | | | NATURAL MOISTURE CONTENT % | CONSISTENCY LIMITS | | | MECHANICAL ANALYSIS | | | | STANDARD PENETRATION RESISTANCE BLOWS FT. | UNIFIED CLASSIFICATION | |
|-------------------------------|--|----------------------------|-----------------------------|----------------|----------------------|-------------------------------------|----------------------|-----------------------|--------------------------|---------------------|-----------|----------------|----------------|---|---------------------------|----------------|
| | | SAMPLE DEPTH (FT.) | SAMPLE NUMBER (FIELD) | SAMPLE TYPE | LABORATORY NUMBER | | LIQUID LIMIT % | PLASTIC LIMIT % | PLASTICITY INDEX % | GRAVEL % | SAND % | > 0.075mm % | < 0.075mm % | | | < 0.005mm % |
| 20 1/2' | | | | | | | | | | | | | | | | |
| 1' | | | | | | | | | | | | | | | | |
| 8' | | | | | | | | | | | | | | | | |
| 12 1/2' | | | 5 | CORE | | | | | | | | | | | | |
| 17 1/2' | | | 6 | CORE | | | | | | | | | | | | |
| 20 1/2' | | | 7 | CORE | | | | | | | | | | | | |
| END HOLE @ 20 1/2' | | | | | | | | | | | | | | | | |

PROJECT: Big Creek Bridge Dempster Hwy. Mi. 122.3 HOLE LOCATION: SEE PLAN
 DATE DRILLED: AUG. 1/72 DRILL TECHNICIAN: _____ PLOTTED BY: R.S. HOLE ELEVATION: _____ HOLE NO.: BC-5

DEPTH: 19'
 TYPE OF DRILL: DIAMOND DRILL (N)
 WATER LEVEL: _____

| N.R.C. PERMAFROST CLASSIFICATION | SAMPLE IDENTIFICATION DATA | | | | NATURAL MOISTURE CONTENT % | CONSISTENCY LIMITS | | | MECHANICAL ANALYSIS | | | | STANDARD PENETRATION RESISTANCE BLOWS / FT. | UNIFIED CLASSIFICATION | |
|--|----------------------------|-----------------------------|----------------|----------------------|-------------------------------------|----------------------|-----------------------|--------------------------|---------------------|-----------|------------|------------|---|---------------------------|-------------------------------------|
| | SAMPLE DEPTH (FT.) | SAMPLE NUMBER (FIELD) | SAMPLE TYPE | LABORATORY NUMBER | | LIQUID LIMIT % | PLASTIC LIMIT % | PLASTICITY INDEX % | GRAVEL % | SAND % | < 0.075 mm | | | | DRY DENSITY LBS. / CU. FT. |
| | | | | | | | | | | | > 0.005 mm | < 0.005 mm | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | 9 1/2' | | | | | | | | | | | | | | |
| | 12 1/2' | 8 | CORE | | | | | | | | | | | | |
| | 17 1/2' | 9 | CORE | | | | | | | | | | | | |
| | 19' | 10 | CORE | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

SOIL DESCRIPTION

GRAVEL, COBBLE STONES, SAND
LIMESTONE RIP RAP 1'

GRAVEL SAND & COBBLES 6 1/2'

BOULDERS & ROCKS 9 1/2'

LIMESTONE BEDROCK 12 1/2'

END HOLE @ 19'



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: BIG CREEK BRIDGE DEMPSTER HWY. MI. 122.3 HOLE LOCATION: SEE PLAN
 DATE DRILLED: AUG. 2/72 DRILL TECHNICIAN: _____ PLOTTED BY: R.S. HOLE ELEVATION: _____ HOLE NO.: BC-7

BORE HOLE DEPTH 19'
 TYPE OF DRILL 7" HOLLOW STEM AUGER (N)
 WATER LEVEL _____

| DEPTH (FT.) | SOIL DESCRIPTION |
|-------------|------------------------------------|
| 0 | ROAD SURFACE |
| 1 | ROAD FILL SAND & GRAVEL |
| 7 1/2 | GRAVEL & SAND |
| 15 1/2 | GRAVEL SOME SAND & ROCKS |
| 17 1/2 | POSSIBLE BEDROCK END HOLE @ 19' |

| SAMPLE DEPTH (FT.) | SAMPLE NUMBER (FIELD) | SAMPLE TYPE | LABORATORY NUMBER | NATURAL MOISTURE CONTENT % | CONSISTENCY LIMITS | | | MECHANICAL ANALYSIS | | | | DRY DENSITY LBS. / CU. FT. | STANDARD PENETRATION RESISTANCE BLOWS / FT. | UNIFIED CLASSIFICATION |
|--------------------|-----------------------|-------------|-------------------|----------------------------|--------------------|-----------------|--------------------|---------------------|--------|--------------|-------------|----------------------------|---|------------------------|
| | | | | | LIQUID LIMIT % | PLASTIC LIMIT % | PLASTICITY INDEX % | GRAVEL % | SAND % | > 0.075 mm % | < 0.75 mm % | | | |
| 4 1/2 | | | | | | | | | | | | | | |
| 6' | 12 | | | | | | | | | | | | | |
| 9 1/2 | 13 | SPLIT SPOON | 5231 | | | | N.P. | 18.3 | 21.1 | 60.6 | | | | ML |
| 14 1/2 | 14 | SPLIT SPOON | 5232 | | | | TRACE | 16.7 | 38.7 | 44.6 | | | | SM |
| 17 1/2 | 15 | SPLIT SPOON | 5233 | | | | TRACE | 18.2 | 48.6 | 33.2 | | | | SM |



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: BIG CREEK BRIDGE DEMPSTER HWY. MI. 122.3 HOLE LOCATION: SEE PLAN
 DATE DRILLED: AUG. 2/72 DRILL TECHNICIAN: _____ PLOTTED BY: R.S. HOLE ELEVATION: _____ HOLE NO.: BC-8

| DEPTH (FT.) | SOIL DESCRIPTION | N.R.C. PERMAFROST CLASSIFICATION | SAMPLE IDENTIFICATION DATA | | | | NATURAL MOISTURE CONTENT (%) | CONSISTENCY LIMITS | | | MECHANICAL ANALYSIS | | | | STANDARD PENETRATION RESISTANCE (BLOWS/FT.) | UNIFIED CLASSIFICATION | |
|-------------|---------------------------|----------------------------------|----------------------------|-----------------------|-------------|-------------------|------------------------------|--------------------|-------------------|----------------------|---------------------|----------|---------------|---------------|---|------------------------|---------------------------|
| | | | SAMPLE DEPTH (FT.) | SAMPLE NUMBER (FIELD) | SAMPLE TYPE | LABORATORY NUMBER | | LIQUID LIMIT (%) | PLASTIC LIMIT (%) | PLASTICITY INDEX (%) | GRAVEL (%) | SAND (%) | <0.075 mm | | | | DRY DENSITY (LB./CU. FT.) |
| | | | | | | | | | | | | | >0.005 mm (%) | <0.005 mm (%) | | | |
| 0 | SAND, GRAVEL & COBBLES 6" | | | | | | | | | | | | | | | | |
| 5 | SAND & GRAVEL | | | | | | | | | | | | | | | | |
| 9 1/2 | | | | | | | | | | | | | | | | | |
| 11 | REUSAL @ 11' | | 16 | SPLIT SPOON | 5234 | | | | | 33.0 | 31.9 | 35.1 | | | | | |



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: Big Creek Bridge Dempster Hwy. Mi. 122.3

HOLE LOCATION: SEE PLAN

DATE DRILLED: AUG. 2/72

DRILL TECHNICIAN:

PLOTTED BY:

R.S.

HOLE ELEVATION:

HOLE NO.: BC-9

HOLE DEPTH 9 1/2'

TYPE OF DRILL T HOLLOW STEM AUGER (N)

WATER LEVEL

DEPTH (FT.) SOIL DESCRIPTION

| DEPTH (FT.) | SOIL DESCRIPTION | N.R.C. PERMAFROST CLASSIFICATION | SAMPLE IDENTIFICATION DATA | | | | NATURAL MOISTURE CONTENT (%) | CONSISTENCY LIMITS | | | MECHANICAL ANALYSIS | | | DRY DENSITY (LBS./CU. FT.) | STANDARD PENETRATION RESISTANCE (BLOWS/FT.) | UNIFIED CLASSIFICATION |
|-------------|------------------------|----------------------------------|----------------------------|-----------------------|-------------|-------------------|------------------------------|--------------------|-------------------|----------------------|---------------------|----------|----------------|----------------------------|---|------------------------|
| | | | SAMPLE DEPTH (FT.) | SAMPLE NUMBER (FIELD) | SAMPLE TYPE | LABORATORY NUMBER | | LIQUID LIMIT (%) | PLASTIC LIMIT (%) | PLASTICITY INDEX (%) | GRAVEL (%) | SAND (%) | > 0.075 mm (%) | | | |
| 0 | GRAVEL & COBBLES | | | | | | | | | | | | | | | |
| 1 1/2' | SAND, GRAVEL SOME SILT | | | | | | | | | | | | | | | |
| 5 | SAND GRAVEL & ROCK | | 4 1/2' | 17 | SPLIT SPOON | 5235 | | | | TRACE | 23.1 | 47.0 | 29.9 | | | SM |
| 8 1/2' | Rock | | 6' | | | | | | | | | | | | | |
| 9 1/2' | REFUSAL @ 9 1/2' | | 8 1/2' | 18 | SPLIT SPOON | 5236 | | 17.3 | 15.6 | 1.7 | 28.0 | 23.6 | 48.4 | | | GM |



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: BIG CREEK BRIDGE DEMPSTER HWY. M: 122.3 HOLE LOCATION: SEE PLAN
DATE DRILLED: AUG. 2 / 72 DRILL TECHNICIAN: PLOTTED BY: R.S. HOLE ELEVATION: HOLE NO.: BC-10

| DEPTH (FT.) | SOIL DESCRIPTION | N.R.C. PERMAFROST CLASSIFICATION | SAMPLE IDENTIFICATION DATA | | | | NATURAL MOISTURE CONTENT (%) | CONSISTENCY LIMITS | | | MECHANICAL ANALYSIS | | | | DRY DENSITY (LBS. CU. FT.) | STANDARD PENETRATION RESISTANCE (BLOWS FT.) | UNIFIED CLASSIFICATION | |
|-------------|-------------------------------------|----------------------------------|----------------------------|-----------------------|-------------|-------------------|------------------------------|--------------------|-------------------|----------------------|---------------------|----------|----------------|----------------|----------------------------|---|------------------------|----------------|
| | | | SAMPLE DEPTH (FT.) | SAMPLE NUMBER (FIELD) | SAMPLE TYPE | LABORATORY NUMBER | | LIQUID LIMIT (%) | PLASTIC LIMIT (%) | PLASTICITY INDEX (%) | GRAVEL (%) | SAND (%) | > 0.075 mm (%) | < 0.075 mm (%) | | | | < 0.005 mm (%) |
| | | | | | | | | | | | | | | | | | | |
| 0 | GRAVEL & COBBLES | | | | | | | | | | | | | | | | | |
| | SAND & GRAVEL | | | | | | | | | | | | | | | | | |
| 3 1/2 | | | | | | | | | | | | | | | | | | |
| 5 | ROCK OR LARGE BOULDERS REFUSAL @ 5' | | 19 | SPLIT SPOON | 5237 | | | | | N.P. | 4.6 | 39.9 | 55.5 | | | | ML | |



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: BIG CREEK BRIDGE DEMPSTER HWY. MI. 122.3 HOLE LOCATION: SEE PLAN

DATE DRILLED: AUG. 2 / 72 DRILL TECHNICIAN: _____ PLOTTED BY: R.S. HOLE ELEVATION: _____ HOLE NO.: BC-11

| HOLE DEPTH | TYPE OF DRILL | WATER LEVEL | N.R.C. PERMAFROST CLASSIFICATION | SAMPLE IDENTIFICATION DATA | | | | NATURAL MOISTURE CONTENT | CONSISTENCY LIMITS | | | MECHANICAL ANALYSIS | | | | STANDARD PENETRATION RESISTANCE | UNIFIED CLASSIFICATION |
|-------------|------------------------|-------------|----------------------------------|----------------------------|-----------------------|-------------|-------------------|--------------------------|--------------------|---------------|------------------|---------------------|------|------------|--------------|---------------------------------|------------------------|
| | | | | SAMPLE DEPTH (FT.) | SAMPLE NUMBER (FIELD) | SAMPLE TYPE | LABORATORY NUMBER | | LIQUID LIMIT | PLASTIC LIMIT | PLASTICITY INDEX | GRAVEL | SAND | > 0.075 mm | < 0.075 mm | | |
| DEPTH (FT.) | SOIL DESCRIPTION | | | | | | | % | % | % | % | % | % | % | LBS. CU. FT. | BLOWS FT. | |
| 0 | | | | | | | | | | | | | | | | | |
| | SAND, GRAVEL & COBBLES | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | |
| | MANY BOULDERS | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | |
| | SOLID ROCK OR ROCKS | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | |
| | LIME STONE | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | |
| | LIME STONE FRACTURED | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | |



Public Works
Canada

MATERIALS QUALITY CONTROL LABORATORY
WHITEHORSE, Y.T.

SUBSURFACE TESTING REPORT

PROJECT: Big Creek Bridge Dempster Hwy. Mi 122.3 HOLE LOCATION: SEE PLAN
 DATE DRILLED: Aug. 2/72 DRILL TECHNICIAN: _____ PLOTTED BY: R.S. HOLE ELEVATION: _____ HOLE NO.: BC-11 cont.

| DEPTH (FT.) | SOIL DESCRIPTION | N.R.C. PERMAFROST CLASSIFICATION | SAMPLE IDENTIFICATION DATA | | | | NATURAL MOISTURE CONTENT % | CONSISTENCY LIMITS | | | MECHANICAL ANALYSIS | | | | UNIFIED CLASSIFICATION | | |
|-------------|---------------------|----------------------------------|----------------------------|-----------------------|-------------|-------------------|----------------------------|--------------------|-----------------|--------------------|---------------------|--------|-------------|-------------|------------------------|--------------------------|---|
| | | | SAMPLE DEPTH (FT.) | SAMPLE NUMBER (FIELD) | SAMPLE TYPE | LABORATORY NUMBER | | LIQUID LIMIT % | PLASTIC LIMIT % | PLASTICITY INDEX % | GRAVEL % | SAND % | <0.075 mm % | <0.005 mm % | | DRY DENSITY LBS./CU. FT. | STANDARD PENETRATION RESISTANCE BLOWS/FT. |
| 5 | LIMESTONE FRACTURED | | 28' | 22 | CORE | | | | | | | | | | | | |
| | END HOLE @ 28' | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | |

LABORATORY TESTING REPORTS

1972 INVESTIGATION

| | | | | | | | | | | | |
|------------------------------------|--|----------------------------|--|--------------------|--------------------------|------------------|--|-----------------|--|----------------------------|--|
| PROJECT BIG CREEK BRIDGE | | | | | DEMPSTER HWY. MILE 122.3 | | | | | DATE RECORDED 19-OCT-72 | |
| STA. SEE PLAN | | SAMPLE TYPE SPLIT SPOON | | DEPTH 5'-6 1/2' | | HOLE NO. BC-6 | | FIELD NO. 11 | | LAB NO. 5229 | |

LABORATORY TESTING REPORT

GRAIN SIZE ANALYSIS

| SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT |
|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|
| 3/8" | 100 | | | | | | |
| #4 | 96.9 | | | | | | |
| 10 | 89.9 | | | | | | |
| 20 | 81.6 | | | | | | |
| 40 | 70.0 | | | | | | |
| 100 | 53.2 | | | | | | |
| 200 | 49.9 | | | | | | |

PETROGRAPHIC ANALYSIS

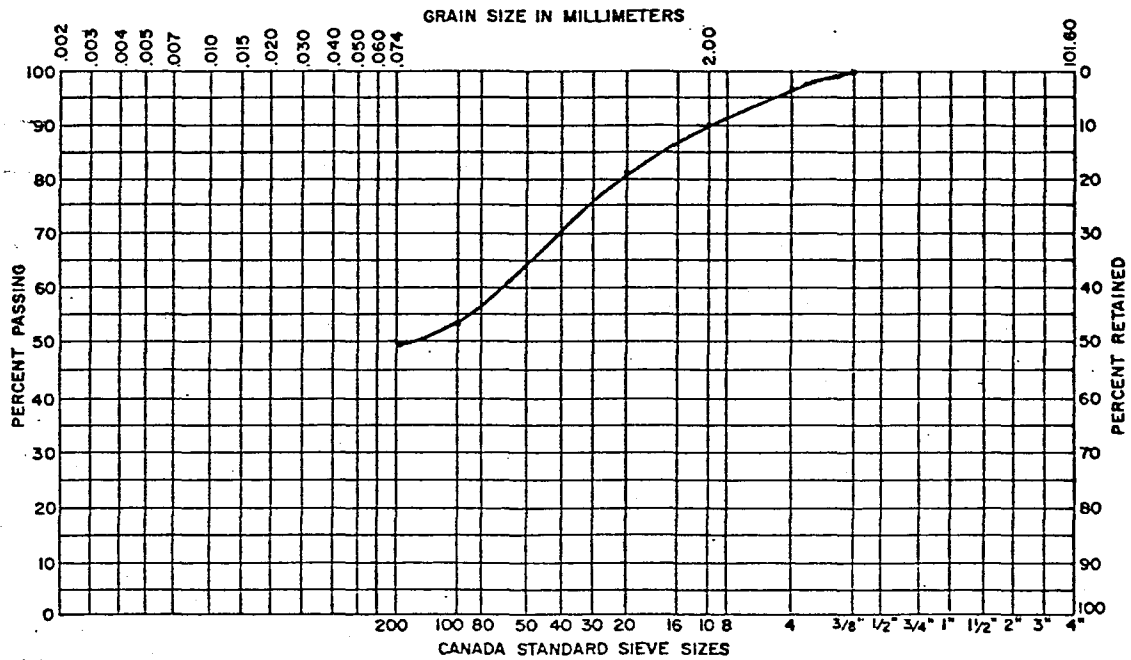
| MATERIAL TYPE | % OF TOTAL SAMPLE |
|---------------|-------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| SAMPLE NO. | UNIFIED CLASSIFICATION | LL | P.L | P.I. | NATURAL % H ₂ O | S.G. |
|------------|------------------------|----|-----|------|----------------------------|------|
| | ML OR SM | | | N.P. | | |
| | | | | | | |
| | | | | | | |

PARTICLE SHAPE ANALYSIS

| | |
|-------------|--|
| ROUND | |
| SUB-ROUND | |
| ANGULAR | |
| SUB-ANGULAR | |
| FLATS | |
| NEEDLES | |

CRUSH COUNT _____ %



| | | | | | |
|--------------------------------------|------|--------|--------|--------|--------|
| CLAY (PLASTIC) TO SILT (NON-PLASTIC) | SAND | | | GRAVEL | |
| | FINE | MEDIUM | COARSE | FINE | COARSE |

LABORATORY'S REMARKS _____

DATE SAMPLED 1-AUG-72
 DATE RECEIVED 5-AUG-72
 TECHNICIAN(S) _____
 CHECKED BY _____

| | | | | | | | |
|------------------------------------|-----------------------------------|-----------------------------|-------------------------|-------------------------|------------------------|--|-----------------------------------|
| PROJECT BIG CREEK BRIDGE | | | | DEMPSTER HWY. Mi. 122.3 | | | DATE RECORDED 19-OCT-72 |
| STA. SEV PLAN. | SAMPLE TYPE SPLIT SPOON | DEPTH 15'-16 1/2' | HOLE NO. BC-7 | FIELD NO. 14 | LAB NO. 5232 | | |

LABORATORY TESTING REPORT

GRAIN SIZE ANALYSIS

| SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT |
|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|
| 3/4" | 100 | 200 | 44.6 | | | | |
| 1/2 | 98.0 | | | | | | |
| 3/8 | 91.7 | | | | | | |
| #4 | 83.3 | | | | | | |
| 10 | 71.4 | | | | | | |
| 20 | 59.0 | | | | | | |
| 40 | 52.4 | | | | | | |
| 100 | 46.6 | | | | | | |

PETROGRAPHIC ANALYSIS

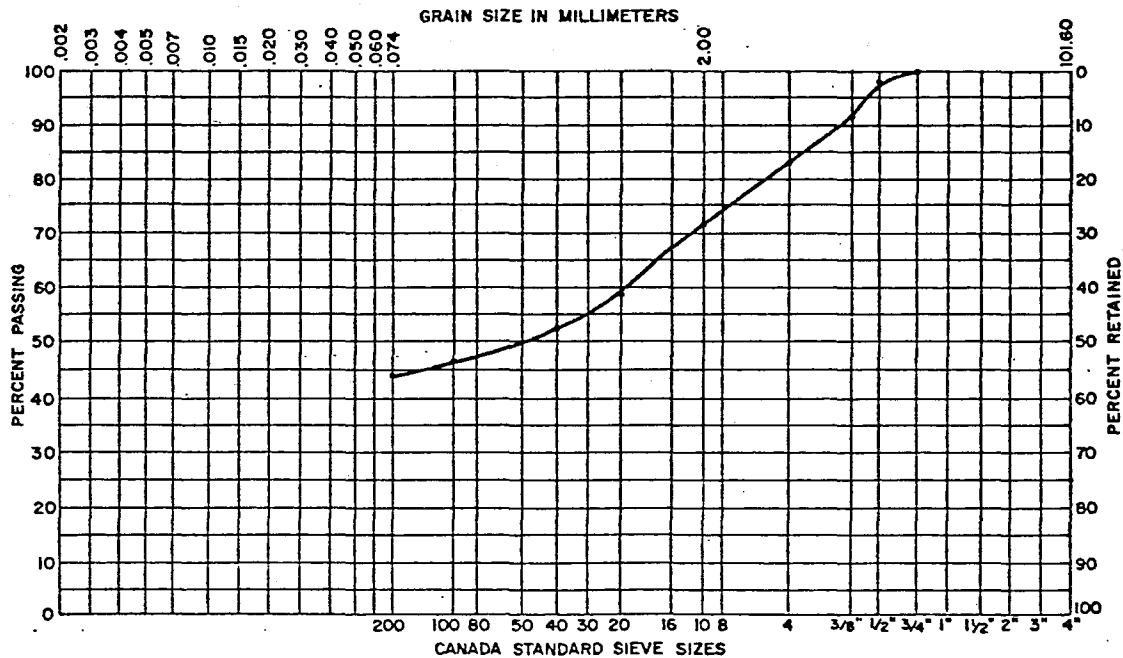
| MATERIAL TYPE | % OF TOTAL SAMPLE |
|---------------|-------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| SAMPLE NO. | UNIFIED CLASSIFICATION | LL | P.L | P.I. | NATURAL % H ₂ O | S.G. |
|------------|------------------------|----|-----|------------|----------------------------|------|
| | SM | | | TR. | | |

PARTICLE SHAPE ANALYSIS

| | |
|-------------|--|
| ROUND | |
| SUB-ROUND | |
| ANGULAR | |
| SUB-ANGULAR | |
| FLATS | |
| NEEDLES | |

CRUSH COUNT _____ %



| | | | | | |
|--------------------------------------|------|--------|--------|--------|--------|
| CLAY (PLASTIC) TO SILT (NON-PLASTIC) | SAND | | | GRAVEL | |
| | FINE | MEDIUM | COARSE | FINE | COARSE |

LABORATORY'S REMARKS _____

DATE SAMPLED 2-AUG-78
 DATE RECEIVED 5-AUG-78
 TECHNICIAN(S) _____
 CHECKED BY _____

| | | | | | | |
|------------------------------------|-----------------------------------|-----------------------------|------------------------|------------------------|------------------------|-----------------------------------|
| PROJECT BIG CREEK BRIDGE | | | | DEMPSTER HWY MI 122.3 | | DATE RECORDED 19-OCT-72 |
| STA. SEE PLAN | SAMPLE TYPE SPLIT SPOON | DEPTH 18'-19 1/2' | HOLE NO BC-7 | FIELD NO. 15 | LAB NO. 5233 | |

LABORATORY TESTING REPORT

GRAIN SIZE ANALYSIS

| SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT |
|------------|-------------------|------------|-------------------|
| 3/4" | 100 | 200 | 33.2 |
| 1/2" | 95.7 | | |
| 3/8" | 91.9 | | |
| #4 | 81.8 | | |
| 10 | 68.0 | | |
| 20 | 51.5 | | |
| 40 | 44.0 | | |
| 100 | 36.2 | | |

PETROGRAPHIC ANALYSIS

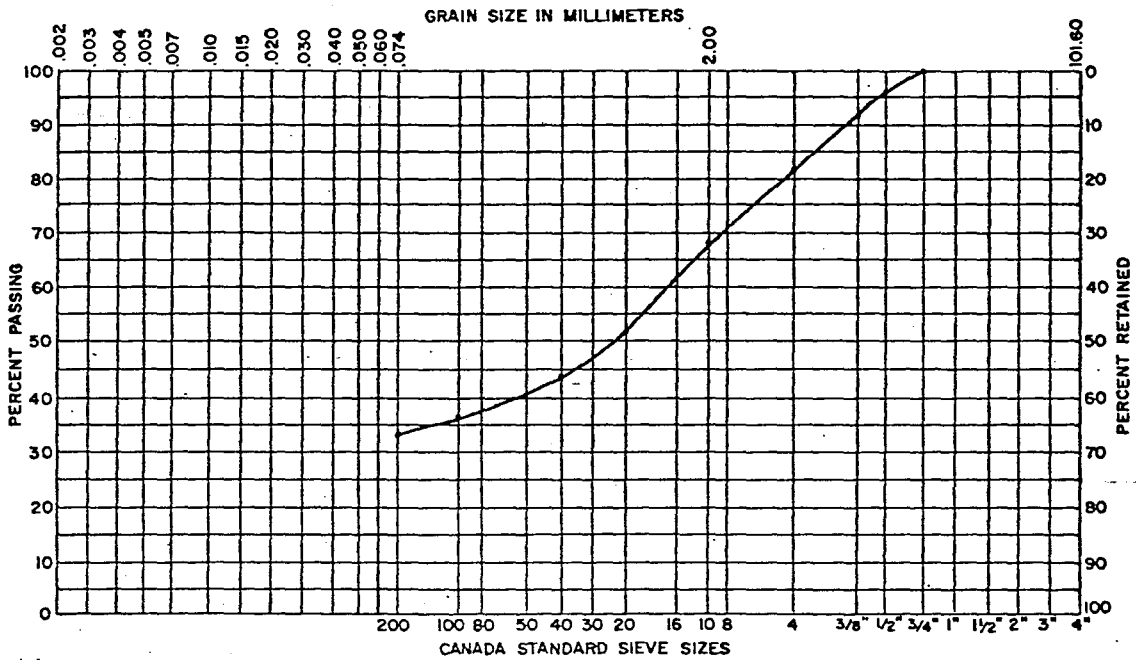
| MATERIAL TYPE | % OF TOTAL SAMPLE |
|---------------|-------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| SAMPLE NO. | UNIFIED CLASSIFICATION | LL | PL | P.I. | NATURAL % H ₂ O | S.G. |
|------------|------------------------|----|----|------------|----------------------------|------|
| | SM | | | IR. | | |
| | | | | | | |
| | | | | | | |

PARTICLE SHAPE ANALYSIS

| | |
|-------------|--|
| ROUND | |
| SUB-ROUND | |
| ANGULAR | |
| SUB-ANGULAR | |
| FLATS | |
| NEEDLES | |
| | |
| | |

CRUSH COUNT _____ %



| | | | | | |
|--------------------------------------|------|--------|--------|--------|--------|
| CLAY (PLASTIC) TO SILT (NON-PLASTIC) | SAND | | | GRAVEL | |
| | FINE | MEDIUM | COARSE | FINE | COARSE |

LABORATORY'S REMARKS _____

DATE SAMPLED 2-AUG-72
 DATE RECEIVED 5-AUG-72
 TECHNICIAN(S) _____
 CHECKED BY _____

| | | | | | |
|------------------------------------|-----------------------------------|-------------------------|-------------------------|------------------------|-----------------------------------|
| PROJECT BIG CREEK BRIDGE | | DEMPSTER HWY MI 122.3 | | | DATE RECORDED 19-OCT-72 |
| STA. SEE PLAN | SAMPLE TYPE SPLIT SPOON | DEPTH 5-6 1/2 | HOLE NO. BC-9 | FIELD NO. 17 | LAB NO. 5235 |

LABORATORY TESTING REPORT

GRAIN SIZE ANALYSIS

| SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT |
|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|
| 1" | 100 | 100 | 31.8 | | | | |
| 3/4" | 98.7 | 200 | 29.9 | | | | |
| 1/2" | 91.3 | | | | | | |
| 3/8" | 86.5 | | | | | | |
| #4 | 76.9 | | | | | | |
| 10 | 62.0 | | | | | | |
| 20 | 49.9 | | | | | | |
| 40 | 47.3 | | | | | | |

PETROGRAPHIC ANALYSIS

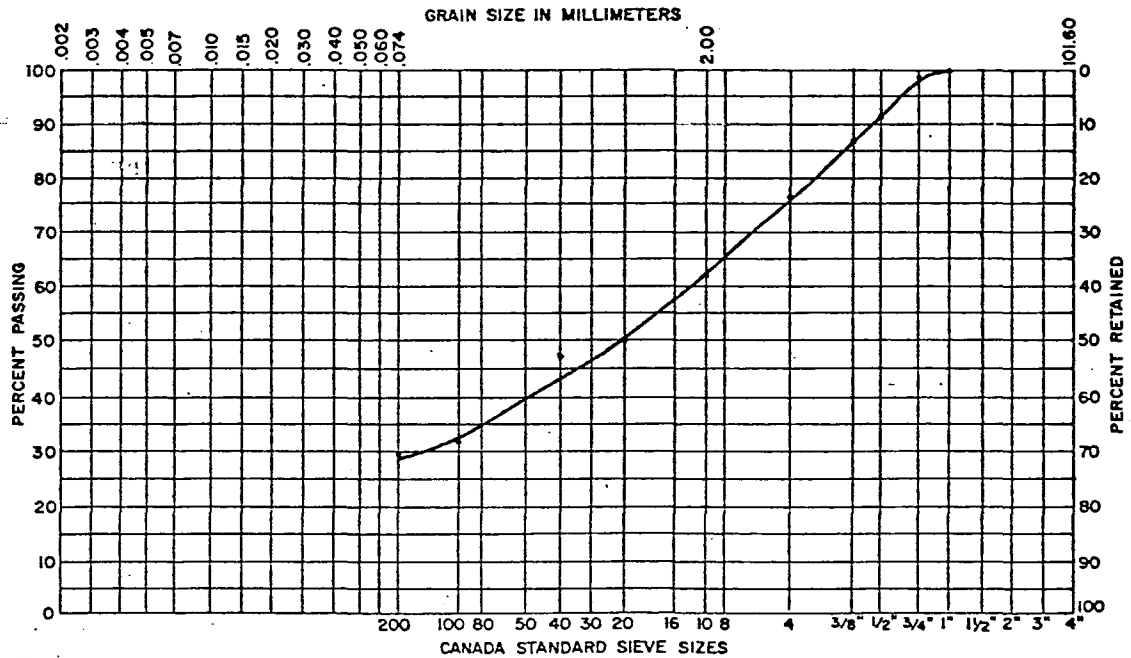
| MATERIAL TYPE | % OF TOTAL SAMPLE |
|---------------|-------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| SAMPLE NO. | UNIFIED CLASSIFICATION | LL | P.L | P.I. | NATURAL % H ₂ O | S.G. |
|------------|------------------------|----|-----|------|----------------------------|------|
| | SM | | | TR. | | |
| | | | | | | |
| | | | | | | |

PARTICLE SHAPE ANALYSIS

| | |
|-------------|--|
| ROUND | |
| SUB-ROUND | |
| ANGULAR | |
| SUB-ANGULAR | |
| FLATS | |
| NEEDLES | |

CRUSH COUNT _____ %



| | | | | | |
|--------------------------------------|------|--------|--------|--------|--------|
| CLAY (PLASTIC) TO SILT (NON-PLASTIC) | SAND | | | GRAVEL | |
| | FINE | MEDIUM | COARSE | FINE | COARSE |

LABORATORY'S REMARKS _____

DATE SAMPLED 2-AUG-72
 DATE RECEIVED 5-AUG-72
 TECHNICIAN(S) _____
 CHECKED BY _____

| | | | | | | |
|-----------------------------|----------------------------|--------------------|------------------|-----------------------|-----------------|----------------------------|
| PROJECT BIG CREEK BRIDGE | | | | DEMPSTER HWY MI 122.3 | | DATE RECORDED 19-OCT-72 |
| STA. SEE PLAN. | SAMPLE TYPE SPLIT SPOON | DEPTH 9-10 1/2' | HOLE NO. RC-9 | FIELD NO. 18 | LAB NO. 5236 | |

LABORATORY TESTING REPORT

GRAIN SIZE ANALYSIS

| SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT |
|------------|-------------------|------------|-------------------|
| 1" | 91.6 | 100 | 58.5 |
| 3/4" | 79.6 | 200 | 48.4 |
| 1/2" | 75.1 | | |
| 3/8" | 73.7 | | |
| #4 | 72.0 | | |
| 10 | 71.6 | | |
| 20 | 70.5 | | |
| 40 | 68.9 | | |

PETROGRAPHIC ANALYSIS

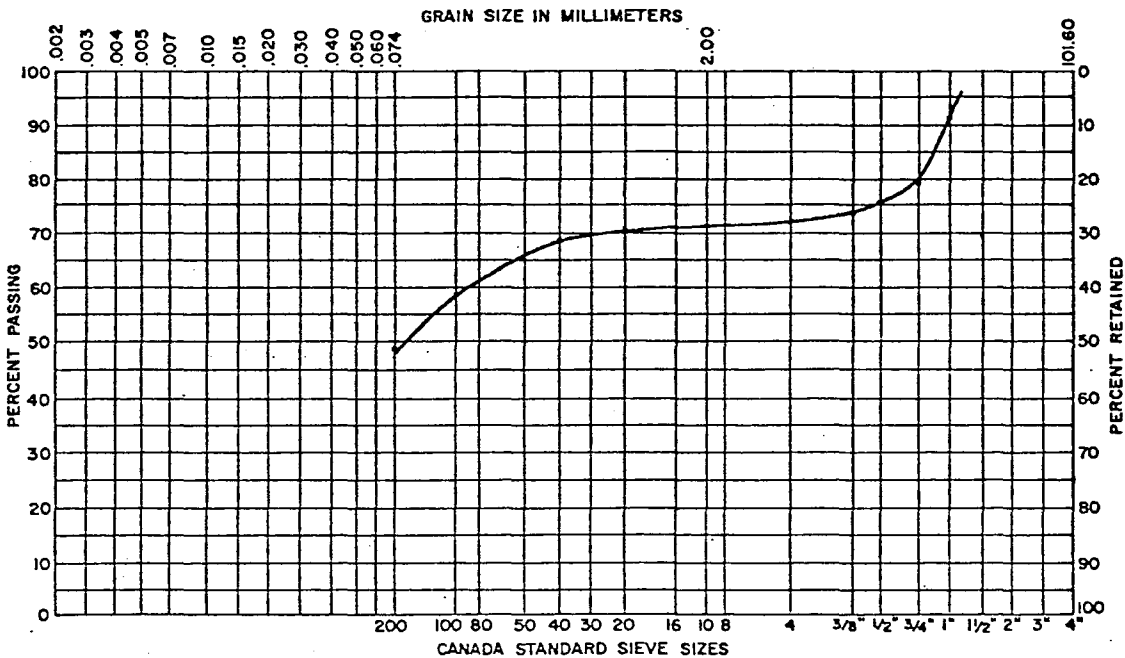
| MATERIAL TYPE | % OF TOTAL SAMPLE |
|---------------|-------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| SAMPLE NO. | UNIFIED CLASSIFICATION | LL | P.L | P.I. | NATURAL % H2O | S.G. |
|------------|------------------------|------|------|------|---------------|------|
| | GM | 17.3 | 15.6 | 1.7 | | |

PARTICLE SHAPE ANALYSIS

| | |
|-------------|--|
| ROUND | |
| SUB-ROUND | |
| ANGULAR | |
| SUB-ANGULAR | |
| FLATS | |
| NEEDLES | |

CRUSH COUNT _____ %



| CLAY (PLASTIC) TO SILT (NON-PLASTIC) | SAND | | | GRAVEL | |
|--------------------------------------|------|--------|--------|--------|--------|
| | FINE | MEDIUM | COARSE | FINE | COARSE |
| | | | | | |

LABORATORY'S REMARKS _____

DATE SAMPLED 2-AUG-78
 DATE RECEIVED 5-AUG-72
 TECHNICIAN(S) _____
 CHECKED BY _____

| | | | | | | |
|------------------------------------|----------------------------|--------------------|-------------------|-----------------------|-----------------|----------------------------|
| PROJECT BIG CREEK BRIDGE | | | | Dempster Hwy Mi 122.3 | | DATE RECORDED 19-Oct-72 |
| STA. SEE PLAN. | SAMPLE TYPE SPLIT SPOON | DEPTH 4'-4 1/2' | HOLE NO. BC-10 | FIELD NO. 19 | LAB NO. 5237 | |

LABORATORY TESTING REPORT

GRAIN SIZE ANALYSIS

| SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT | SIEVE SIZE | % FINER BY WEIGHT |
|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|
| 1/2" | 100 | | | | | | |
| 3/8" | 99.3 | | | | | | |
| #4 | 95.4 | | | | | | |
| 10 | 85.3 | | | | | | |
| 20 | 73.8 | | | | | | |
| 40 | 65.1 | | | | | | |
| 100 | 57.4 | | | | | | |
| 200 | 55.5 | | | | | | |

PETROGRAPHIC ANALYSIS

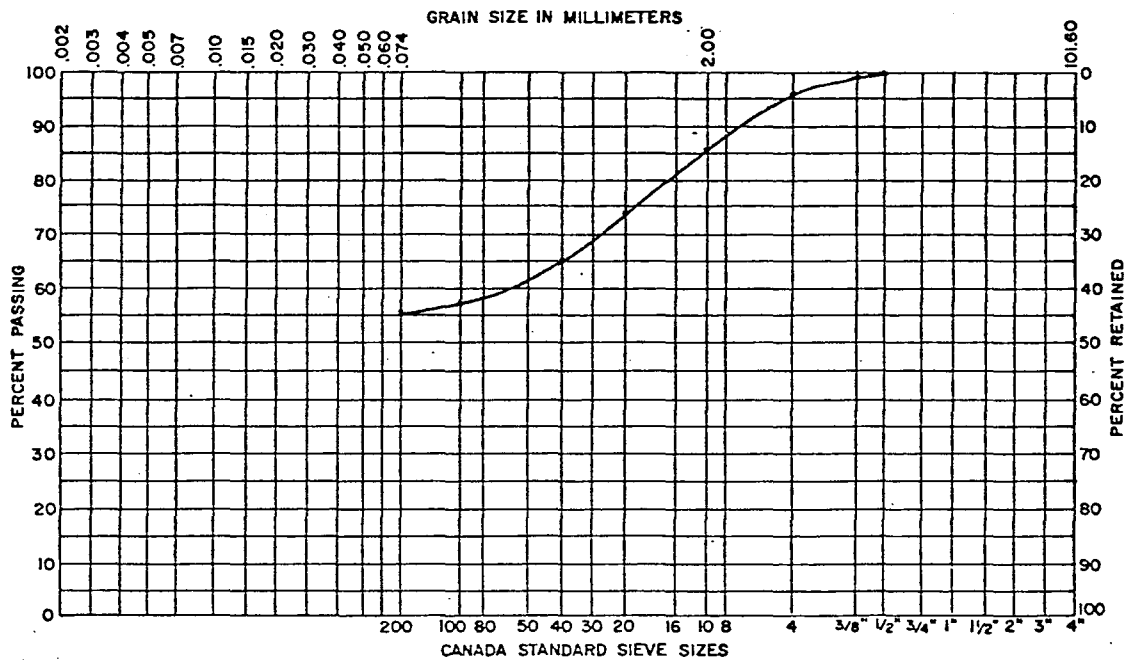
| MATERIAL TYPE | % OF TOTAL SAMPLE |
|---------------|-------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| SAMPLE NO. | UNIFIED CLASSIFICATION | L.L. | P.L. | P.I. | NATURAL % H ₂ O | S.G. |
|------------|------------------------|------|------|------|----------------------------|------|
| | ML | | | N.P. | | |
| | | | | | | |
| | | | | | | |

PARTICLE SHAPE ANALYSIS

| | |
|-------------|--|
| ROUND | |
| SUB-ROUND | |
| ANGULAR | |
| SUB-ANGULAR | |
| FLATS | |
| NEEDLES | |

CRUSH COUNT _____ %



| | | | | | |
|--------------------------------------|------|--------|--------|--------|--------|
| CLAY (PLASTIC) TO SILT (NON-PLASTIC) | SAND | | | GRAVEL | |
| | FINE | MEDIUM | COARSE | FINE | COARSE |

LABORATORY'S REMARKS _____

DATE SAMPLED 2-Aug-72
 DATE RECEIVED 5-Aug-72
 TECHNICIAN(S) _____
 CHECKED BY _____

S E C T I O N B - B

SCALE 1 : 40

ELEVATIONS - METRES -

595

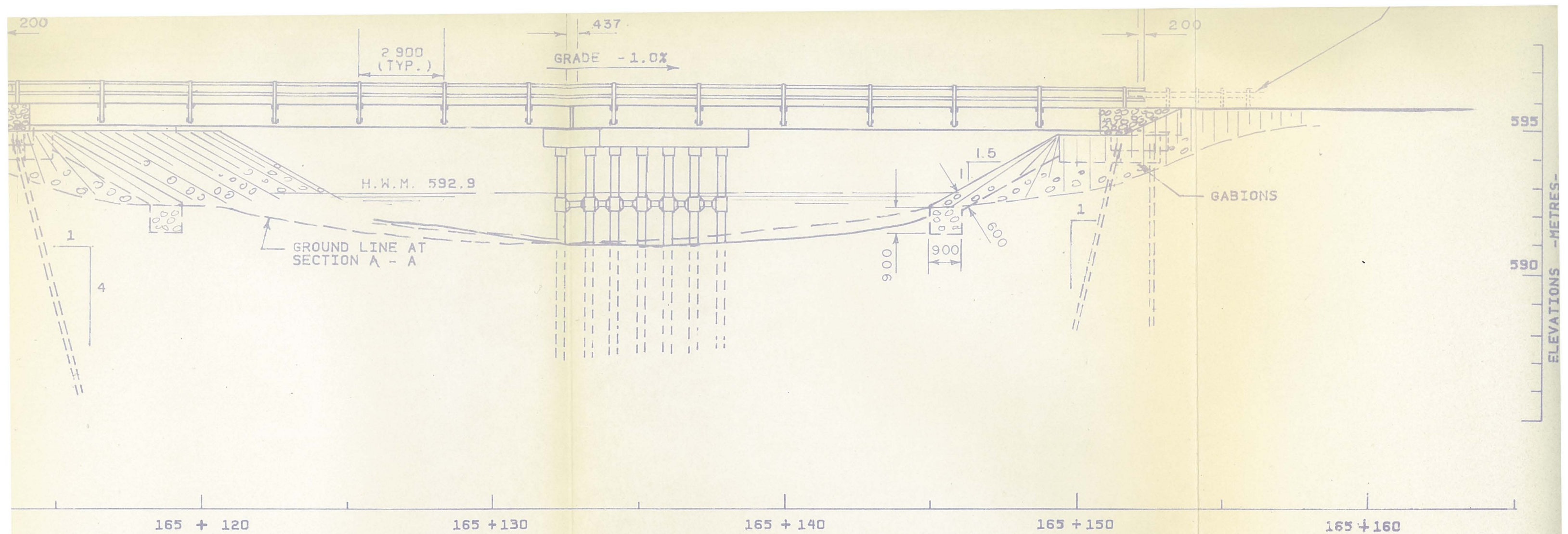
590

NOTES

1. SPECIFICATIONS: PROJECT SPECIFICATIONS (HEREINAFTER THESE WILL BE REFERRED TO AS SPEC'S), CSA STANDARDS AND AS NOTED.
2. DESIGN CODE: CSA CAN3-S6-M78 UNLESS OTHERWISE NOTED.
3. DESIGN LOAD: 1. MS250-77
2. AN ALLOWANCE FOR FUTURE LOAD OF 1.2 kPa ON ROADWAY
4. UNITS: 1. CHAINAGES AND ELEVATIONS IN m
2. DIMENSIONS AND WELD SIZE IN mm
5. CONCRETE: SEE SPEC'S.
BEARING PADS: 25 MPa AT 28 DAYS, MINIMUM.
6. REINFORCING STEEL: TO CSA G30.12-M1977, OR G30.16-M1977
GRADE 400 DEFORMED BARS. SEE SPEC'S.
7. CONCRETE COVER FOR REINFORCING BARS: 75mm, UNLESS OTHERWISE NOTED.
8. CHAMFER EXPOSED EDGES 20mm, UNLESS OTHERWISE NOTED.
9. HOT DIP GALVANIZING: TO CSA G164-M1970. MINIMUM THICKNESS
90µm AFTER FABRICATION.
10. WELDING: TO CSA W59-1982 UNLESS OTHERWISE NOTED, SEE SPEC'S.
11. RIPRAP: SEE SPEC'S.
12. INFORMATION ON BENCH MARKS, BRIDGE LOCATION AND ORIENTATION, BOREHOLE LOGS, WATER ELEVATIONS AND EXISTING BRIDGE PLANS TO BE OBTAINED FROM PUBLIC WORKS CANADA, PACIFIC REGION, 201 RANGE ROAD, TAKINI, WHITEHORSE, Y.T. Y1A 3A4
13. HIGH STRENGTH BOLTS: TO ASTM A325-80d, TYPE I, SEE SPEC'S.

180 200mm

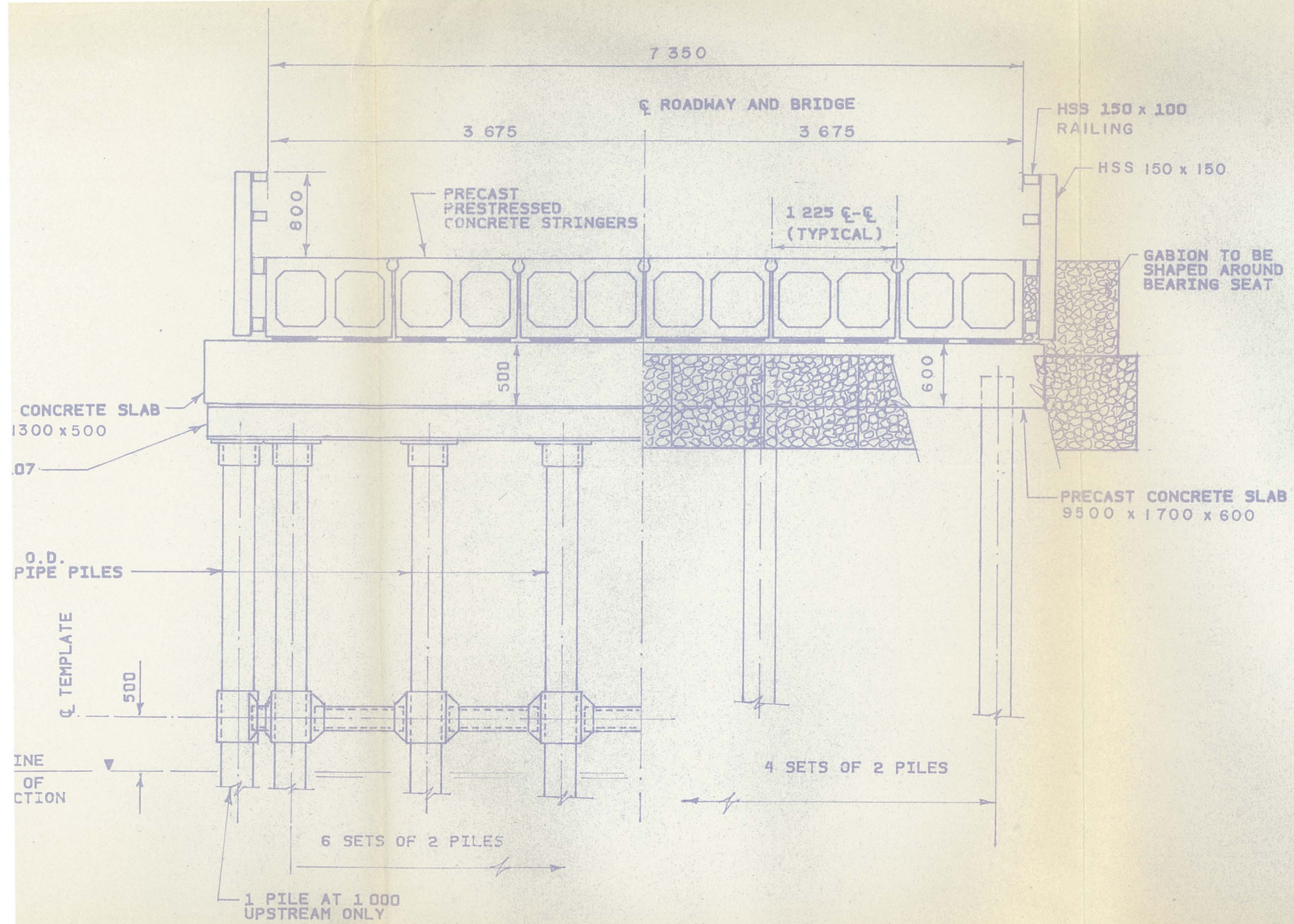
| | |
|--|---------------|
| dessin no. | |
| project | projet |
| <p>BIG CREEK BRIDGE DEMPSTER HIGHWAY km 197 YUKON TERRITORY</p> | |
| drawing | dessin |
| <p>GENERAL LAYOUT</p> | |
| project number | no. du projet |
| <p>101010</p> | |
| drawing no. | no. du dessin |
| <p>1 OF 6</p> | |
| <p>7011-10-1</p> | |



E L E V A T I O N A - A

SCALE 1 : 125

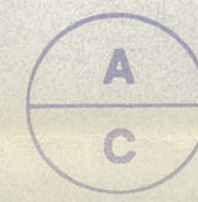




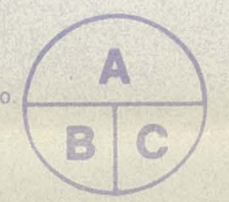
PIER
ABUTMENT
 SECTION B - B

SCALE 1 : 40

| | |
|-----------|------|
| revisions | date |
|-----------|------|



A detail no.
 no. du détail
 B location drawing no.
 sur dessin no.
 C drawing no.
 dessin no.



project projet

BIG CREEK BRIDGE
DEMPSTER HIGHWAY km 197

592

BC 72-10

BIG CREEK

593

STA. 165
END OF B

NOTE: SUPPLY AND DELIVERY
OF PRESTRESSED CONCRETE
STRINGERS ARE NOT IN THIS
CONTRACT.

PRECAST CONCRETE
10025 x 1300 x 500

WF310 x 107

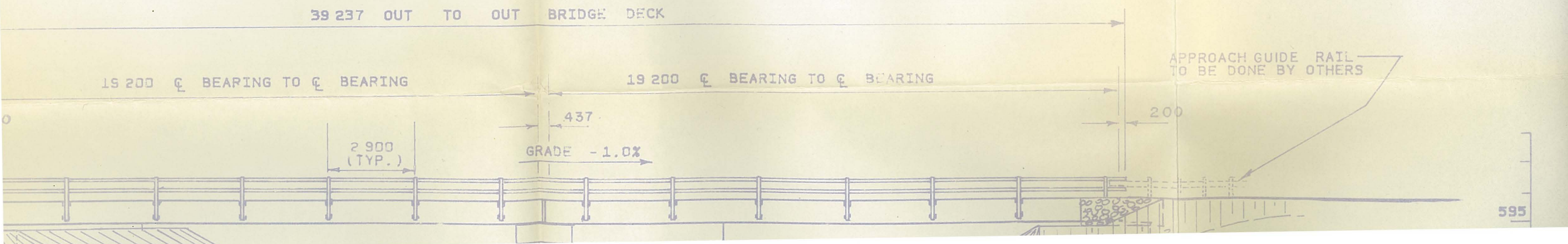
324mm O.D.
STEEL PIPE PILES

P L A N

SCALE 1 : 125

Q. TEMPLATE

WATER LINE
AT TIME OF
CONSTRUCTION



593

592

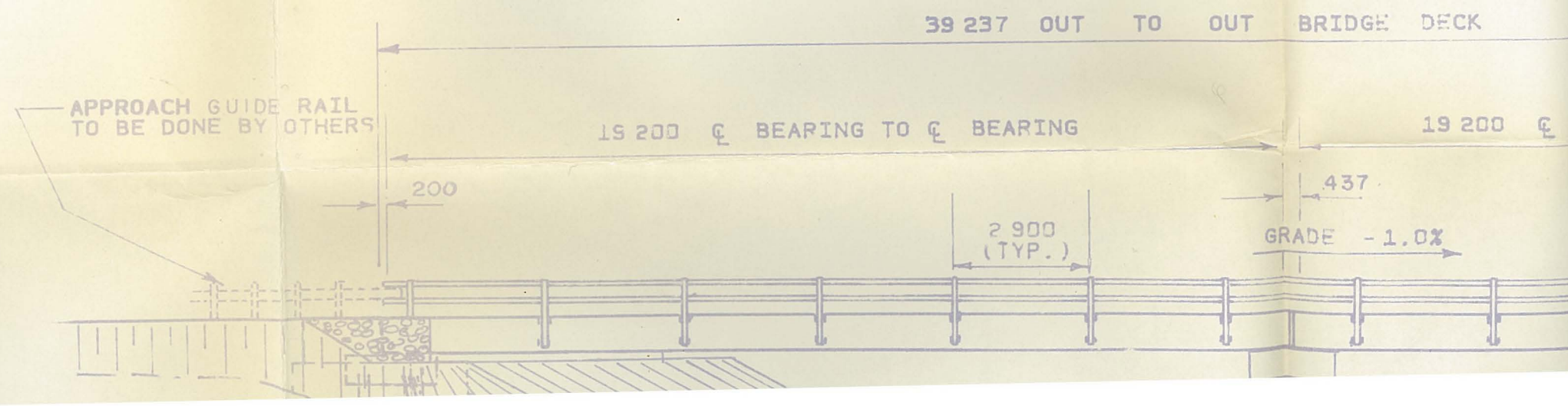
BC 72-10

BIG CREEK

c

P L A N

SCALE 1 : 125



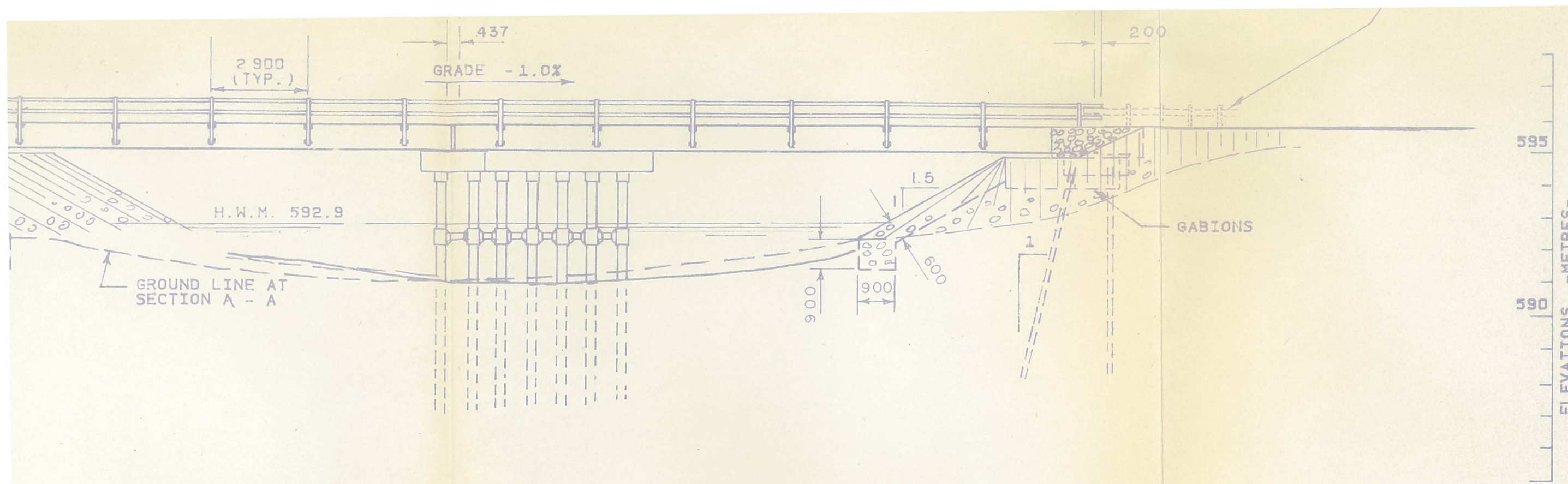
ELEVATIONS - METRES -
595
590

NOTES

1. SPECIFICATIONS: PROJECT SPECIFICATIONS (HEREINAFTER THESE WILL BE REFERRED TO AS SPEC'S), CSA STANDARDS AND AS NOTED.
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4. UNITS: 1. CHAINAGES AND ELEVATIONS IN m
2. DIMENSIONS AND WELD SIZE IN mm
5. CONCRETE: SEE SPEC'S.
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7. CONCRETE COVER FOR REINFORCING BARS: 75mm, UNLESS OTHERWISE NOTED.
8. CHAMFER EXPOSED EDGES 20mm, UNLESS OTHERWISE NOTED.
9. HOT DIP GALVANIZING: TO CSA G164-M1976. MINIMUM THICKNESS 90µm AFTER FABRICATION.
10. WELDING: TO CSA W59-1982 UNLESS OTHERWISE NOTED, SEE SPEC'S.
11. RIPRAP: SEE SPEC'S.
12. INFORMATION ON BENCH MARKS, BRIDGE LOCATION AND ORIENTATION, BOREHOLE LOGS, WATER ELEVATIONS AND EXISTING BRIDGE PLANS TO BE OBTAINED FROM PUBLIC WORKS CANADA, PACIFIC REGION, 201 RANGE ROAD, TAKINI, WHITEHORSE, Y.T. Y1A 3A4.
13. HIGH STRENGTH BOLTS: TO ASTM A325-80a, TYPE I, SEE SPEC'S.

180 200mm

| | |
|---|---------------|
| dessin no. | |
| project | projet |
| BIG CREEK BRIDGE DEMPSTER HIGHWAY km 197 YUKON TERRITORY | |
| drawing | dessin |
| GENERAL LAYOUT | |
| | |
| project number | no. du projet |
| 101010 | |
| drawing no. | no. du dessin |
| 1 OF 6 | |
| 7011-10-1 | |



E L E V A T I O N A - A

SCALE 1 : 125

